# JVC

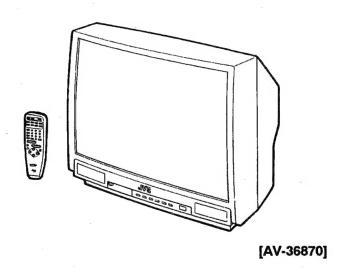
# **SERVICE MANUAL**

**COLOR TELEVISION** 

AV-36850(US&CA)
AV-36870(US&CA)

**BASIC CHASSIS** 

FK



# **CONTENTS**

|   | SPECIFICATIONS · · · · · · · · · · · · · · · · · · ·      | 2  |
|---|---|----|
|   | SAFETY PRECAUTIONS  | 3  |
|   | FEATURES · · · · · · · · · · · · · · · · · · ·            | 4  |
|   | MAIN DIFFERENCE LIST BETWEEN AV-36850 AND AV-36870 ······ | 4  |
|   | FUNCTIONS [AV-36850]                                      | 5  |
|   | FUNCTIONS [AV-36870]                                      | 6  |
|   | SPECIFIC SERVICE INSTRUCTIONS                             | 7  |
|   | SERVICE ADJUSTMENTS · · · · · · · · · · · · · · · · · · · | 2  |
| * | STANDARD CIRCUIT DIAGRAM (APPENDED) 2-                    | -1 |
|   | PARTS LIST  | g  |

# **SPECIFICATIONS**

| lan                                | Contents   |  |  |  |
|------------------------------------|--|--|--|--|
| ltem                               | AV-36850(US&CA)                                  | AV-36870(US&CA)  |  |  |
| Dimensions ( W×H×D )               | 860mm×765mm×603mm                                | 860mm×765mm×603mm  |  |  |
|                                    | 33-7/8" ×30-1/8" ×23-3/4"                        | 33-7/8" ×30-1/8" ×23-3/4"                                  |  |  |
| Mass                               | 67.8 kg<br>149.5 lbs                             | 68.0 kg<br>149.9 lbs                                       |  |  |
| Reception Format                   | NTSC, BTSC System ( Multi Channel Sound )        |  |  |  |
| Reception Range                    |  | ``````````````````````````````````````                     |  |  |
| (Receiving Channels and Frequency) |  |  |  |  |
| VL Band                            | (02 ~ 06) 54MI                                   | Hz ∼ 88MHz   |  |  |
| VH Band                            | (07 ~ 13) 174N                                   | MHz ∼ 216MHz   |  |  |
| UHF Band                           | (14 ~ 69) 470N                                   |  |  |  |
| CATV Channels and Frequency        |  |  |  |  |
| Low Band                           | $(02 \sim 06, A-8)$ by $(02 \sim 06 \& 01)$      |  |  |  |
| High Band                          | $(07 \sim 13) \text{ by } (07 \sim 13)$          |  |  |  |
| Mid Band                           | $(A \sim I)$ by $(14 \sim 22)$                   |  |  |  |
| Super Band                         | (J ~ W) by (23 ~ 36)                             | (54MHz ~ 804MHz)   |  |  |
| Hyper Band                         | $(W + 1 \sim W + 28)$ by $(37 \sim 64)$          |  |  |  |
| Ultra Band                         | $(W + 29 \sim W + 84)$ by $(65 \sim 125)$        |  |  |  |
| Sub Mid Band                       | (A8, A1 ~ A4) by (01, 96 ~ 99)                   | )  |  |  |
| Closed Caption System              | C1, C2, F1, F2 Available                         |  |  |  |
| Intermediate Frequency             |  |  |  |  |
| Video IF Carrier                   | 45,75  | 5MHz   |  |  |
| Sound IF Carrier                   | 41.25MHz   | z (4.5MHz)   |  |  |
| Color Sub Carrier                  | 3.58MHz  |  |  |  |
| Power Input                        | 120V A   | C, 60Hz  |  |  |
| Power Consumption                  | 135W (US)  | / 1.8A (CA)  |  |  |
| Picture Tube                       |  |  |  |  |
| Screen Size                        | 36inch / 90cm , measured diagonally, Full square | 36inch / 89cm , measured diagonally, Full squa             |  |  |
| High Voltage                       | 31kV ±1.3kV (at                                  | zero beam current)   |  |  |
| Surround System                    | Build in HYPER St                                | JRROUND system   |  |  |
| Audio Power Output                 | 3W -   | + 3W   |  |  |
| External Input (1, 2)              |  | Front AV-IN terminal is bridged with INPUT 2               |  |  |
| Video Input                        | 1Vp-p  | , 75Ω  |  |  |
| Audio Input                        | 500mVrms ( -4dBs                                 | s), High impedance   |  |  |
| S-Video Input                      |  | ( Negative sync provided )                                 |  |  |
|                                    | C : 0.286Vp-p ( b                                | urst signal), 75Ω  |  |  |
| Audio Output                       | 1  | s (+6dBs) / Fix : 500mVrms (-4dBs)<br>when modulated 100%) |  |  |
| AV 0 1 !-!- 5                      | 14   |  |  |  |
| AV Compu Link Ex                   |  | ijack × 2  |  |  |
| Speakers                           |  | 12cm Oval Type × 2   |  |  |
| Antenna Input Impedance            | 75Ω (VHF/UHF) Terminal, F-Type Connector         |  |  |  |
|                                    |  |  |  |  |

Design & specification subject to change without notice

# **SAFETY PRECAUTIONS**

- The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- 3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by () on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- 4. Use isolation transformer when hot chassis.

The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.

 Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.

Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE: (#) side GND, the ISOLATED(NEUTRAL): (∀) side GND and EARTH: (∃) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.

If above note will not be kept, a fuse or any parts will be broken.

- If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
- 7. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- 8. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a  $10 \text{k}\Omega$  2W resistor to the anode button.
- 9. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

#### 10. Isolation Check

#### (Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

#### (1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second,

(.... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

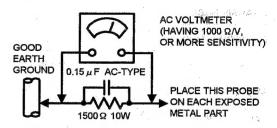
This method of test requires a test equipment not generally found in the service trade.

#### (2) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

#### Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500  $\Omega$  10W resistor paralleled by a  $0.15\,\mu$  F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

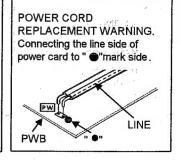


#### 11. High voltage hold down circuit check.

After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.

See item "How to check the high voltage hold down circuit".

This mark shows a fast operating fuse, the letters indicated below show the rating.



# **FEATURES**

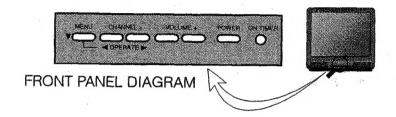
- New chassis design enables use of single board with simplified circuitry.
- Comb filter improved picture quality.
- Provided with 2 tuner (TV/CATV, PIP).
- Full-square CRT reproduces fine textured picture in every detail.
- PLL synthesizer system for channel tuning.
- AV COMPU LINK EX terminals allow simultaneous mode switching of the TV, connected receiver ( or amplifier ) and / or VCR.
- TELETEXT broadcast can be viewed.
- With AUDIO, VIDEO input terminal.

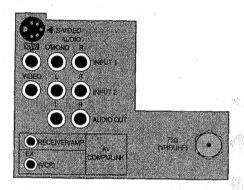
- By the sound multiplex broadcast with MTS system, you can enjoy music programs and sporting events with live realism.
- S-VIDEO input terminal for taking best advantage of Super VHS.
- Variable audio output terminal.
- I2C bus control utilities single chip ICs.
- By selecting the THEATER STATUS picture, you can enjoy pictures with powerful effects.
- The HYPER-SURROUND system makes a reproduction of the acoustic effects in a theater with strong appeal.

# MAIN DIFFERENCE LIST BETWEEN AV-36850 AND AV-36870

| Model Name |                      | AV-3           | 6850          | AV-3           | 6870          |
|------------|----------------------|----------------|---------------|----------------|---------------|
| ۳.         | Part Name            | (US)           | (CA)          | (US)           | (CA)          |
|            | MAIN PWB             | SFK-10         | 06A-M2        | SFK-1007A-M2   |               |
|            | AV SEL. PWB          | SFK-80         | 04A-M2        | SFK-8001A-M2   |               |
|            | FRONT<br>AV JACK PWB | _              |               | SFKoJ          | 002A-M2       |
| $\Delta$   | PICTURE TUBE         | A90AE          | J15X01        | A90AE          | X15X01        |
|            | CONTROL BASE         | · ·            | <del></del>   | CM2267         | 70-001-A      |
|            | CHASSIS BASE         | CM12689        | 9-B01-VA      | CM1241         | 6-E01-VA      |
| Δ          | F. CABINET ASSY      | CM12747-00F-MA |               | CM12747-00G-MA |               |
|            | DOOR                 | CM36162-006-A  |               | CM36162-005-A  |               |
|            | SHEET                | <del>-</del>   |               | CM48272-001-A  |               |
|            | TAP. SCREW           | <del></del>    |               | SDSB3010M      |               |
|            | REMOTE CONTROL       | RM-C7          | '45-1C        | RM-C           | B85-1A        |
| Δ          | INST BOOK (ENGLISH)  | CQ40343-001-A  | <b>←</b>      | CQ40334-001-A  | <b>←</b>      |
| Δ          | INST BOOK (FRNCH)    |                | CQ40344-001-A |                | CQ40335-001-A |
| Δ          | RATING LABEL         | CM23034-001-A  | CM22999-001-A | CM23034-001-A  | CM22999-001-A |
|            | REGI. CARD           | BT-51006-1Q    |               | BT-51006-1Q    |               |
|            | WARRANTY<br>CARD     |                | BT-52002-1Q   |                | BT-52002-1Q   |
|            | SVC CENTER<br>LIST   |                | BT-20071B-Q   |                | BT-20071B-Q   |

# FUNCTIONS [AV-36850] FRONT AND REAR PANEL DIAGRAMS





REAR PANEL DIAGRAM

# REMOTE CONTROLS

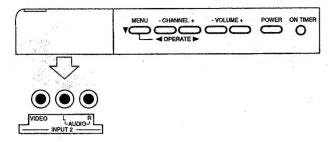
RM-C745



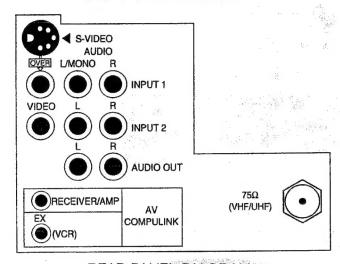
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# FUNCTIONS [AV-36870]

# FRONT AND REAR PANEL DIAGRAMS



FRONT PANEL DIAGRAM



REAR PANEL DIAGRAM

# **REMOTE CONTROL**

**RM-C885** 



No.51214

# SPECIFIC SERVICE INSTRUCTIONS

## **DISASSEMBLY PROCEDURE**

#### REMOVING THE REAR COVER

- 1. Unplug the power supply cord.
- 2. Remove the 11 screws marked A as shown in Fig.2.
- 3. Remove the rear cover toward you.

When reinstalling the rear cover, carefully push it inward after inserting the chassis into the rear cover groove.

#### REMOVING THE FRONT AV JACK PW BOARD

[Only for AV-36870(U&C)]

· After removing the rear cover.

Remove the screw marked C as shown in Fig.2.

#### **REMOVING THE CHASSIS**

- After removing the rear cover.
- Slightly raise the both sides of the chassis by hand and remove the 2 claws under the both sides of the chassis from the front cabinet.
- Draw the chassis backward along the rail in the arrow direction marked B as shown in the Fig.2.

(If necessary, take off the wire clamp, connectors etc.)

When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT SOCKET PWB and the MAIN PWB.

#### REMOVING THE AV TERMINAL BOARD

- After removing the rear cover.
- 1. Remove the 2 screws marked D as shown in Fig.2.
- After removing the claw marked E in the direction of arrow mark as shown in Fig.1.
- When you pull out the AV TERMINAL BOARD in the direction of arrow marked F as shown in Fig.1, it can be removed.
  - At that time, the connector of the ANTENNA SPLITTER and the TUNER comes out.
- Thus the connector should be securely inserted when the AV TERMINAL BOARD is installed again.

#### REMOVING THE FRONT CONTROL PW BOARD

· After removing the rear cover and chassis.

#### [For AV-36870(U&C)]

- Lift up the FRONT CONTROL PWB with control base, and raise the claws in the arrow direction marked G as shown in Fig.3.
- Pick up the PWB upward in the arrow direction marked H, then removed.

#### [For AV-36850(U&C)]

- Remove the 2 screws.
- 2. Then remove the FRONT CONTROL PWB.

#### CHECKING THE MAIN PW BOARD

To check the back side of the MAIN PW Board.

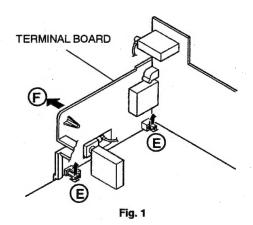
- 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
- Erect the chassis vertically so that you can easily check the back side of the MAIN PW Board.

#### [CAUTION]

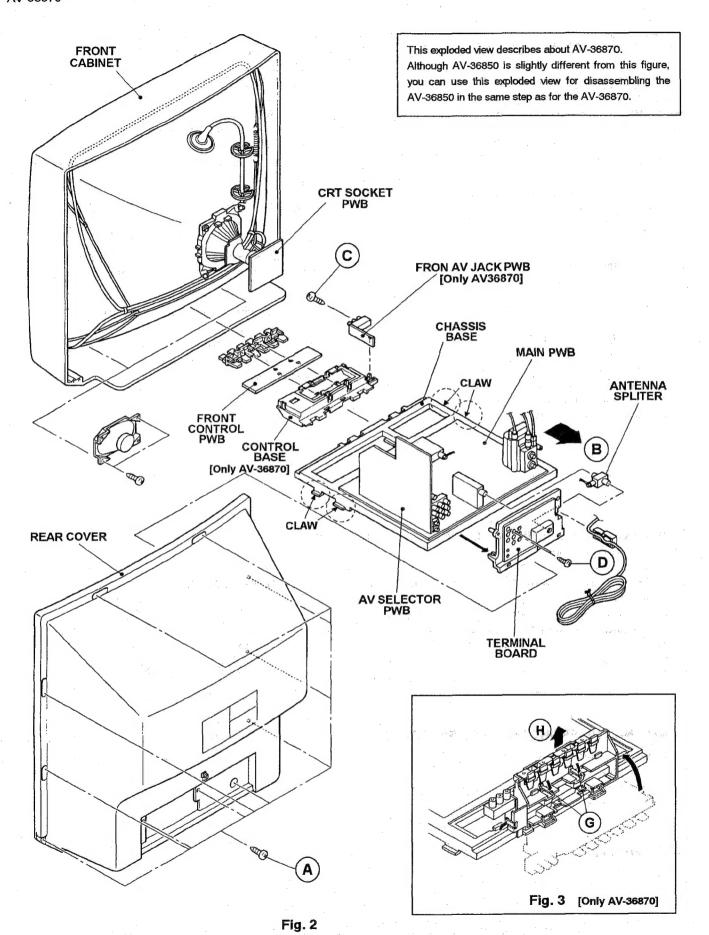
- When erecting the chassis, be careful so that there will be no contacting with other PWB.
- Before turning on power, make sure that the wire connector, CRT earth wire and other connectors properly connected.

#### WIRE CLAMPING AND CABLE TYING

- 1. Be sure to clamp the wire,
- Never remove the cable tie used for tying the wires together.Should it be inadvertently removed, be sure to tie the wires with a new cable tie.



No.51214



No.51214

#### REMOVING THE CRT

- \* Replacement of the CRT should be performed by 2 or more persons.
- · After removing the cover, chassis etc..,
- Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.3).
- While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.4.
- Remove 4 screws marked by arrows with a box type screw driver as shown in Fig.4.
- Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
- After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.5.
- The CRT should be assembled according to the opposite sequence of its dismounting steps.
- The CRT change table should preferably be smaller that the CRT surface, and its height be about 35cm.

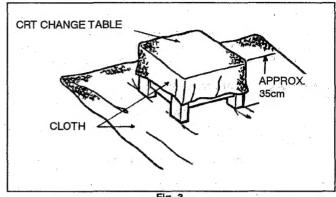


Fig. 3

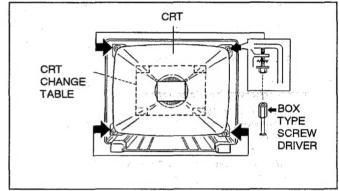


Fig. 4

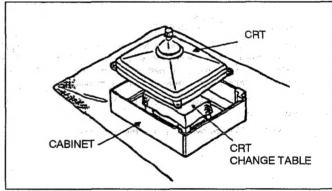


Fig. 5

# COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

 Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismounting them, be sure to coat silicon grease for electrical insulation as shown in Fig.6.
 Wipe around the anode button with clean and dry cloth. (Fig.6)
 Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not stick to the anode button. (Fig.7)

#### ★ Silicon grease product No. KS - 650N

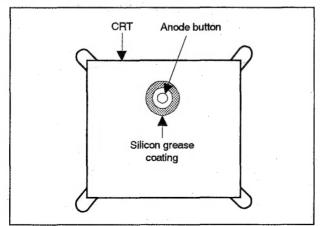


Fig. 6

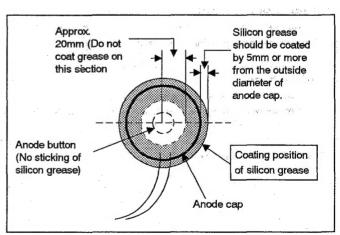


Fig. 7

9

No.51214

## **MEMORY IC REPLACEMENT**

## 1. Memory IC

This model use a memory (EEP-ROM) IC.
The memory IC stores data for proper operation of video and deflection circuits.
When replacing, be sure to use an IC containing this (initial value) data.

#### 2. Memory IC replacement procedure

| PROCEDURE   | SCREEN DISPLAY  |
|---|---|
| (1) Power off Switch off the power and disconnect the power cord from the outlet.   |   |
| (2) Replace the memory IC.  Be sure to use memory ICs written with the initial data values.   |   |
| (3) Power on  Connect the power cord to the outlet and switch on the power.   |   |
| <ol> <li>(4) System constant check and setting</li> <li>1) [AV-36870: RM-C885]         Simultaneously press the DISPLAY key and VIDEO STATUS key of the remote control unit.         [AV-36850: RM-C745]         Simultaneously press the OSD key and STATUS key of the remote control unit. [AV-36850: RM-C745]</li> <li>2) The SERVICE MENU screen of Fig.1 is displayed.</li> <li>3) While the SERVICE MENU is displayed, again simultaneously press the DISPLAY (OSD) and VIDEO STATUS (STATUS) keys to display the Fig.2 SYSTEM CONSTANT screen.</li> <li>4) Refer to the SYSTEM CONSTANT table and check the setting items. Where these differ, select the setting item with the MENU UP / DOWN key and adjust the setting with the MENU LEFT / RIGHT keys. (The letters of the selected item are displayed in yellow.)</li> <li>5) After adjusting, release the MENU LEFT / RIGHT key to store the setting value.</li> <li>6) Press the EXIT key twice to return the normal screen.</li> </ol> | SERVICE MENU  PICTURE SOUND THEATER OTHERS PIP LOW LIGHT HIGH LIGHT RF AFC 1 RF AFC 2 12C BUS CTRL  SELECT BY OPERATE BY Fig. 1  SYSTEM CONSTANT  MODEL : AV-36870 .CCD : YES |
| (5) Receive channel setting  Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.  | SELECT BY A V EXIT BY Fig.2   |
| (6) User settings  Check the user setting items according to Table 2.  Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER' S GUIDE) and set the items as described.  | [The figures are about the model AV-36870]  |
| (7) SERVICE MENU setting  Verify what to set in the SERVICE MENU, and set whatever is necessary. (Fig. 1) refer to the SERVISE ADJUSTMENT for setting.  |   |

TABLE 1 (System Constant setting)

| Setting item | Setting constant   | Setting value                                  |  |
|--------------|--|--|--|
| MODEL        | AV-27850 → AV-27870 → AV-32820<br>AV-32850 → AV-32870 → AV-36850<br>AV-36870 → SEARS 32V | AV-36870 : [AV-36870]<br>AV-36850 : [AV-36850] |  |
| CCD          | YES NO   | YES  |  |

## TABLE 2 (User setting)

| Setting item                                 | Setting value  | Setting item   | Setting value  |
|--|--|--|--|
| 1. Use remote controller key                 | s  |  |  |
| POWER CHANNEL VOLUME TV/VIDEO CLOSED CAPTION | OFF CH-02 Proper sound volume TV OFF(CC1/T1) : [AV-36850] OFF(CC1/T1/BLACK) : [AV-36870] | DISPLAY VIDEO STATUS SLEEP TIMER PIP SOURCE PIP POSITION | OFF<br>STANDARD<br>00<br>CH-04<br>Lower left                     |
| HYPER SURROUND                               | OFF  |  |  |
| 2. Settings from MENU                        |  |  |  |
| TINT COLOR PICTURE BRIGHT DETAIL             | CENTER CENTER CENTER CENTER CENTER   | TV SPEAKER<br>AUDIO OUT<br>LANGUAGE<br>CLOSED CAPTION    | ON FIX ENG CAPTION : CC1 TEXT : T1 BACKGROUND : BLACK [AV-36870] |
| NOISE MUTE<br>SET VIDEO STATUS               | ON<br>ALL CENTER   | AUTO TUNER SET UP  | OTHERS   |
| BASS<br>TREBLE<br>BALANCE<br>MTS             | CENTER<br>CENTER<br>CENTER<br>STEREO   | CHANNEL SUMMARY  | Set optionally Stations 02 - CBS 04 - NBC 07 - ABC               |
| SET CLOCK<br>ON/OFF TIMER<br>SET LOCK CODE   | Unnecessary to set<br>NO<br>Unnecessary to set   | TUNER MODE   | AIR  |
|  |  |  |  |

No.51214 11

# **SERVICE ADJUSTMENTS**

#### **ADJUSTMENT PREPARATION:**

- You can make the necessary adjustments for this unit with either the remote control unit or with the adjustment equipment and parts
  as before.
- Adjustment with the remote control unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.
- 3. Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
- 4. Make sure that AC power is turned on correctly.
- 5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
- 6. Never touch any adjustment parts which are not specified in the list for this adjustment-variable resistors, transformers, condensers, etc.
- 7. Presetting before adjustment.

Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

| VIDEO STATUS          | STANDARD |
|-----------------------|----------|
| NOTCH                 | OFF      |
| HYPER SURROUND        | OFF      |
| BASS, TREBLE, BALANCE | CENTER   |

## **ADJUSTMENT EQUIPMENT**

- 1. DC voltmeter(or digital voltmeter)
- 2. Oscilloscope
- 3. Signal generator ( Pattern generator ) [NTSC]
- 4. Remote control unit
- TV audio multiplex signal generator
- 6. Frequency counter

#### **ADJUSTMENT ITEMS**

- ●B1 Voltage check
- ●IF VCO adjustment
- ●RF AGC adjustment
- FOCUS adjustment
- DEFLECTION adjustment

V. CENTER, V. SIZE, V. POSITION adjustment H. WIDTH, SIDEPIN CORRECT, H. POSITION adjustment

●VIDEO / CHROMA adjustment

WHITE BALANCE (Low light) adjustment
WHITE BALANCE (High light) adjustment
SUB BRIGHT adjustment
SUB CONTRAST adjustment
SUB COLOR adjustment
SUB TINT adjustment

PIP circuit adjustment

RF AGC ( Noise ) adjustment
DISPLAY POSITION adjustment
SUB BRIGHT adjustment
SUB CONTRAST adjustment
SUB COLOR adjustment
SUB TINT adjustment

●MTS circuit adjustment

INPUT LEVEL adjustment STEREO adjustment SAP VCO adjustment

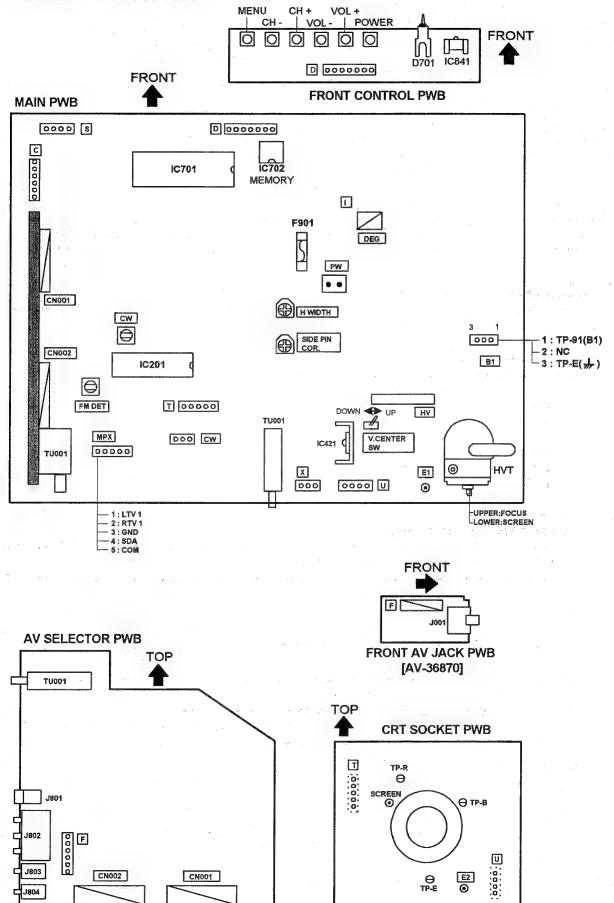
FILTER check

SEPARATION adjustment

● PURITY, CONVERGENCE adjustment

No.51214

## **ADJUSTMENT LOCATONS**



## BASIC OPERATION OF SERVICE MENU

1. Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

. In general, 10 basic setting(adjustments) items or verifications are performed in the SERVICE MENU.

(1) PICTURE ..... This sets the setting values (adjustment values) of the VIDEO/CHROMA and DEFLECTION circuits.

(2) SOUND ...... This sets the setting values (adjustment values) of the AUDIO circuit.

(3) THEATER ..... This is used when the THEATER MODE is adjusted.

(4) OTHERS..... This sets the setting values (adjustment values) of the OTHERS circuit.

(5) PIP ...... This sets the setting values (adjustment values) of the PICTURE-IN-PICTURE circuit.

( PIP is means as Picture In Picture )

(6) LOW LIGHT · · · · · This sets the setting values (adjustment values) of the WHITE BALANCE circuit.

(7) HIGH LIGHT ..... This sets the setting values (adjustment values) of the WHITE BALANCE circuit.

(8) RF AFC 1 · · · · · This is used when the IF VCO is adjusted.

(9) RF AFC 2 · · · · · This is used when the IF VCO is adjusted of the PIP. [Do not adjust about this item]

(10) I<sup>2</sup>C BUS CTRL · · · · · · This is used when ON/OFF of the I<sup>2</sup>C BUS CTRL is set. [Do not adjust about this item]

#### 3. Basic Operations of the SERVICE MENU

## (1) How to enter the SERVICE MENU.

Press the DISPLAY (OSD) key and VIDEO STATUS (STATUS) key of the remote control unit at the same time to enter the SERVICE MENU screen ①shown in figure page later.

#### (2) SERVICE MENU screen selection

Press the UP / DOWN key of the MENU to select any of the following items.

(The letters of the selected items are displayed in yellow.)

- PICTURE
- SOUND
- THEATER
- OTHERS
- PIP
- LOW LIGHT
- HIGH LIGHT
- RE AFC 1
- RF AFC 2
- I<sup>2</sup>C BUS CTRL

#### (3) Enter the any setting (adjustment) mode

#### • PICTURE, SOUND and OTHERS mode

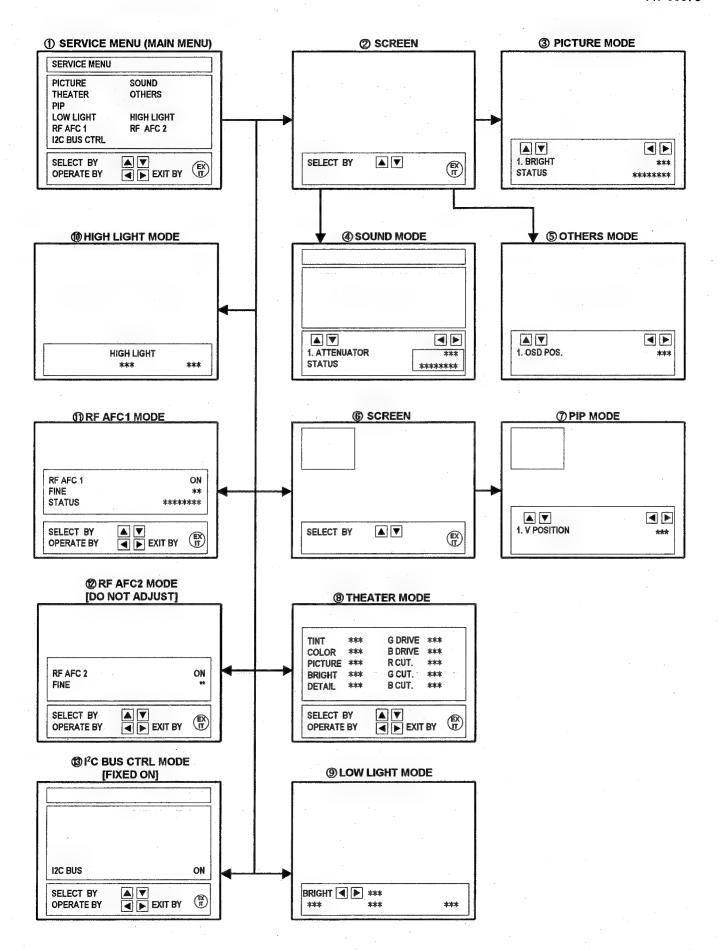
- 1) If select any of PICTURE, SOUND or OTHERS items, and the LEFT / RIGHT key is pressed from SERVICE MENU ( MAIN MENU ), the screen ②will be displayed as shown in figure page later.
- 2) Then the UP / DOWN key is pressed, the PICTURE mode screen ③ or the SOUND mode screen ④ or the OTHERS mode screen ⑤is displayed, and the PICTURE, SOUND or OTHERS setting can be performed.

#### PIP mode

- 1) If select the PIP item, and the LEFT / RIGHT key is pressed from SERVICE MENU ( MAIN MENU ), the screen ⑥ will be displayed as shown in figure page later.
- 2) Then UP / DOWN key is pressed, the PIP mode screen ⑦ is displayed, and the PIP setting can be performed.

#### THEATER, LOW LIGHT, HIGH LIGHT, RF AFC1, RF AFC2 and I<sup>2</sup>C BUS CTRL mode

- 2) Then the settings or verifications can be performed.

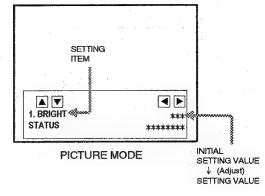


15

#### (3) Setting method

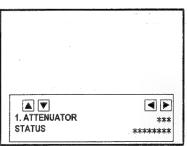
- UP / DOWN key of the MENU
   Select the item.
- LEFT / RIGHT key of the MENU
   Setting(adjust) the value of the items.
   When the key is released the setting value will be stored (memorized).
- 3) EXIT key

  Returns to the previous screen.

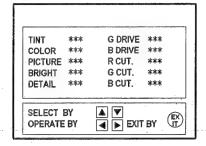


#### (4) Releasing SERVICE MENU

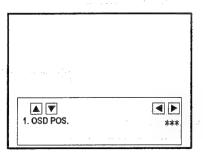
- 1) After returning to the SERVICE MENU upon completion of the setting (adjustment) work, press the EXIT key again.
- ★ The settings for LOW LIGHT and HIGH LIGHT are described in the WHITE BALANCE page of ADJUSTMENT.
- ★ The setting for RF AFC 1 are described in the IF VCO page of ADJUSTMENT.



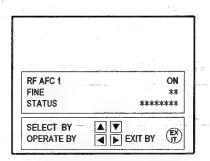
SOUND MODE



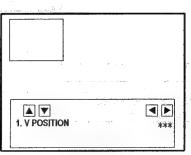
THEATER MODE



OTHERS MODE



RF AFC 1 MODE



PIP MODE

# **INITIAL SETTING VALUE OF SERVICE MENU**

- 1. Adjustment of the SERVICE MENU is made on the basis of the initial setting values; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.
- 2. Do not change the initial Setting Values of the Setting (Adjustment) items not listed In "ADJUSTMENT".

#### PICTURE MODE

|     | o. Setting (Adjustment) item |                | Initial set | Initial setting value |  |
|-----|------------------------------|----------------|-------------|-----------------------|--|
| No. |                              | Variable range | AV-36850    | AV-36870              |  |
| 1.  | BRIGHT                       | 0~127          | 64          | 64                    |  |
| 2.  | PICTURE                      | 0~127          | 75          | 75                    |  |
| 3.  | WPS (WHITE PEAK SUPPRESSOR)  | 0/1            | 1           | 1                     |  |
| 4.  | TV DETAIL                    | 0~63           | 38          | 38                    |  |
| 5.  | TV BPF (TV B.P.FILTER)       | 0/1            | 1           | 1                     |  |
| 6.  | TINT                         | 0~127          | 64          | 64                    |  |
| 7.  | COLOR                        | 0~127          | 52          | 52                    |  |
| 8.  | EXT BRIGHT                   | ±25            | -1          | -1                    |  |
| 9.  | EXT PICT.                    | ±25            | 0           | 0                     |  |
| 10. | EXT DETAIL                   | 0~63           | 38          | 38                    |  |
| 11. | EXT BPF (EXT B.P.FILTER)     | 0/1            | 1           | 1                     |  |
| 12. | EXT TINT                     | ±25            | +8          | +8                    |  |
| 13. | EXT COLOR                    | ±25            | +3          | +3                    |  |
| 14. | V SIZE                       | 0~63           | 30          | 30                    |  |
| 15. | V CENTER                     | 0~7            | 0           | 0                     |  |
| 16. | H POSITION                   | 0~31           | 22          | 22                    |  |
| 17. | HAFC                         | 0/1            | 0           | 0                     |  |
| 18. | BLANKING                     | 0/1            | 0           | 0                     |  |
| 19. | RF AGC                       | 0~63           | 35          | 35                    |  |
| 20. | PIF VCO                      | 0~127          | 64          | 64                    |  |

#### • SOUND MODE

| No. | Setting (Adjustment) item   | Variable range | Initial setting value |
|-----|-----------------------------|----------------|-----------------------|
| 1.  | ATTENUATOR                  | 0~63           | 50                    |
| 2.  | BALANCE                     | 0~63           | 32                    |
| 3.  | NOISE DET.                  | 0/1            | 1                     |
| 4.  | IN LEVEL (INPUT LEVEL)      | 0~63           | 25                    |
| 5,  | FH MONITOR                  | 0/1            | 0                     |
| 6.  | STEREO VCC                  | 0~63           | 23                    |
| 7.  | PILOT CAN. (PILOT CANCELER) | 0/1            | 0                     |
| 8,  | FILTER                      | 0~63           | 30                    |
| 9,  | LOW SEP. (LOW SEPARATION)   | 0~63           | 35                    |
| 10. | HI SEP. (HI SEPARATION)     | 0~63           | 17                    |
| 11. | 5FH MON. (5FH MONITOR)      | 0/1            | 0                     |
| 12. | SAP VCO                     | 0~63           | 28                    |
| 13. | IN GAIN (INPUT GAIN)        | 0/1            | 0                     |
| 14. | FILOFFSET                   | 0~10           | 0                     |

#### THEATER MODE

| Setting (Adjustment) Item | Variable range | Initial setting value |
|---------------------------|----------------|-----------------------|
| TINT                      | ±20            | ±00                   |
| COLOR                     | ±20            | -2                    |
| PICTURE                   | ±20            | -15                   |
| BRIGHT                    | ±20            | ±00                   |
| DETAIL                    | ±15            | -3                    |
| G DRIVE                   | -80~+50        | -25                   |
| B DRIVE                   | -80~+50        | -72                   |
| R CUT. (R CUTOFF)         | ±10            | ±00                   |
| G CUT (G CUTOFF)          | ±10            | ±00                   |
| B CUT (B CUTOFF)          | ±10            | ± 00                  |

No.51214 17

#### • OTHERS MODE

|     |  |                | Initial setting value |  |
|-----|--|----------------|-----------------------|--|
| No. | Setting (Adjustment) item              | Variable range | AV-36850 AV-36870     |  |
| 1.  | OSD POS.                               | 0 ~ 7          | 0                     |  |
| 2.  | CCD POS. (CLOSED CAPTION DECODER POS.) | 0 ~ 15         | 5                     |  |
| 3.  | EOSEL                                  | 0/1            | 1                     |  |
| 4.  | F1-FIELD                               | 0/1            | . 1                   |  |
| 5.  | F1-LINE21                              | 0 ~ 15         | 8                     |  |
| 6.  | F2-LINE21                              | 0 ~ 15         | 8                     |  |
| 7.  | OSD STABI                              | 1/0            | 0                     |  |
| 8.  | LOCK DET.                              | 1/0            | O O                   |  |
| 9.  | COL. NOISE                             | 1/0            | 0                     |  |
| 10. | MENU COLOR                             | -30 ∼ 0        | -10                   |  |
| 11. | MENU PICT                              | -30 ∼ 0        | -12                   |  |
| 12. | MENU BRI                               | -30 ∼ 0        | -12                   |  |

#### PIP MODE [For AV-32850, AV-32870]

|     | Cotting (Adicustrum and Same |                | initial setting value                   |  |
|-----|------------------------------|----------------|---|--|
| No. | Setting (Adjustment) item    | Variable range | AV-36850<br>AV-36870                    |  |
| 1.  | V POSITION                   | 0 ~ 127        | 25                                      |  |
| 2.  | LOWER POS.                   | 0 ~ 255        | 123                                     |  |
| 3.  | H POSITION                   | 0 ~ 63         | 9                                       |  |
| 4.  | RIGHT POS.                   | 0 ~ 127        | 93                                      |  |
| 5.  | TINT                         | 0 ~ 63         | 45                                      |  |
| 6.  | COLOR SAT                    | 0 ~ 127        | 50                                      |  |
| 7.  | CONTRAST                     | 0 ~ 127        | 50                                      |  |
| 8.  | BRIGHT                       | 0 ~ 31         | 20                                      |  |
| 9.  | FRAMEY                       | 0 ~ 15         | 8                                       |  |
| 10. | FRAME BY                     | 0 ~ 7          | 4                                       |  |
| 11. | FRAME RY                     | 0~7            | 4                                       |  |
| 12. | H AREA                       | 0 ~ 63         | 23                                      |  |
| 13. | V AREA                       | 0 ~ 63         | 41                                      |  |
| 14. | Y/C DELAY                    | 0 ~ .15        | 5                                       |  |
| 15. | EXT MH SEL                   | 0~3            | o                                       |  |
| 16, | EXT MV SEL                   | 0~1            | . 0                                     |  |
| 17. | EXT SYNC SEL                 | 0~3            | 3                                       |  |
| 18. | HP                           | 0 ~ 3          | . 0                                     |  |
| 19. | AD CLOCKSEL                  | 0 ~ 3          | 0                                       |  |
| 20. | KILLER                       | 0 ~ 1          | 1                                       |  |
| 21. | TEST-ACC-L                   | 0/1            | ••••••••••••••••••••••••••••••••••••••• |  |
| 22. | ALL-LEVEL                    | 0 ~ 63         | 21                                      |  |
| 23. | AFFOFF                       | 0/1            | o                                       |  |
| 24. | ADJ                          | 0 ~ 15         | 5                                       |  |
| 25. | ASPECT H                     | 0 ~ 63         | 54                                      |  |
| 26. | HT                           | 0 ~ 15         | 7                                       |  |
| 27. | ASPECT V                     | 0 ~ 255        | 67                                      |  |
| 28. | TEST-PIP-C                   | 0/1            | 0                                       |  |
| 29. | BGPMSEL                      | 0/1            | 0                                       |  |
| 30, | BPFSEL                       | 0~3            | 0                                       |  |
| 31. | LPFSEL                       | 0 ~ 3          | 2                                       |  |
| 32. | MODE                         | 0~3            | 1 ,                                     |  |
| 33. | BG-START                     | 0 ~ 63         | 14                                      |  |
| 34. | DOUTSEL                      | 0~3            | 0                                       |  |
| 35. | EXT BH SEL                   | 0~3            | 3                                       |  |
| 36. | SEL-PD-OUT                   | 0 ~ 1          | 0                                       |  |

19

#### LOW LIGHT MODE

| Setting (Adjustment) item | Wasta Li       | Initial sett      | ing value         |
|---------------------------|----------------|-------------------|-------------------|
| Setung (Adjustment) item  | Variable range | AV-36850          | AV-36870          |
| R CUTOFF                  | 0 ~ 255        | - 2               | 20: (************ |
| G CUTOFF                  | 0 ~ 255        |                   | 20                |
| B CUTOFF                  | 0 ~ 255        | man in the second | 20                |

#### • HIGH LIGHT MODE

| Catting (Adiapamant) item | V              | Initial setti | ng value |
|---------------------------|----------------|---------------|----------|
| Setting (Adjustment) item | Variable range | AV-36850      | AV-36870 |
| G DRIVE                   | <b>0</b> ∼ 255 | 12            | 8        |
| B DRIVE                   | 0 ~ 255        | 12            | 8        |

#### • RF AFC 1 MODE

| Setting (Adjustment) item | V-1-bl-        | Initial setting value |                              |  |
|---------------------------|----------------|-----------------------|------------------------------|--|
| Setting (Adjustment) item | Variable range | AV-36850              | AV-36870                     |  |
| RFAFC 1                   | ON/OFF         | ON                    | man eller<br>Strikt stranger |  |
| FINE                      | -77 ∼ +77      | ±00                   | 2015 1871-1818               |  |

#### • RF AFC 2 MODE [ For AV-32850, AV-32870 ]

| Setting (Adjustment) item | Variable range      | Initial set | ting value |
|---------------------------|---------------------|-------------|------------|
| Cotaing (Adjustment) Item | variable range      | AV-36850    | AV-36870   |
| RF AFC 2<br>FINE          | ON/OFF<br>-77 ~ +77 | Do not      | adjust     |

#### I<sup>2</sup>C BUS CTRL MODE

| Setting (Adjustment) item | Variable range | Initial setting value |
|---------------------------|----------------|-----------------------|
| I <sup>2</sup> C BUS      | ON/OFF         | Fixed on              |

No.51214

# ADJUSTMENTS

#### **B1 VOLTAGE CHECK**

| Item                | Measuring instrument                     | Test point                               | Adjustment item | Description  |
|---------------------|--|--|-----------------|--|
| B1 Voltage<br>check | DC Voltmeter                             | B1 (B1<br>Connector<br>1 pin)<br>(TP-91) |                 | 1. Input a black and white signal (color off). 2. Connect the DC voltmeter to B1 connector 1 pin (TP-91) and TP-E(///) (B1 connector 3 pin). 3. Confirm that the voltage is DC134V±2V. |
|                     | en e | TP-E( /// (B1) Connector 3 pin)          |                 |  |

#### ADJUSTMENT OF IF VCO

| item                             | Measuring instrument                | Test point               | Adjustment item                              | Description  |
|----------------------------------|-------------------------------------|--------------------------|--|--|
| IF VCO<br>adjustment             | Oscilloscope<br>Signal<br>generator | Cw<br>Connector<br>3 pin | CW TRANSF. [RF AFC 1] mode                   | <ol> <li>Input the color bar signal.</li> <li>Connect the oscilloscope to pin 3 of the CW connector.</li> <li>Select the [RF AFC 1] mode of the SERVICE MENU, and set the RF AFC1 to OFF and FINE to ±00.</li> <li>Turn CW TRANSF., verify that the AFC output voltage changes quickly between 2.4V ±1.5V and then adjust the voltage to 2.4V</li> </ol>   |
| AFC output voltage : 2.4V ± 0.2V | 1                                   |                          | Control range<br>should be over<br>2.4V±1.5V | ±0.2V.  5. Return the RF AFC to ON.  6. Cancel the SERVICE MENU and check that no irregularities are displayed on the screen. If there any irregularities, select [RF AFC 1] mode on the SERVICE MENU and verify that FINE is 00 when the AFC is ON. Repeat steps 3 to 5 if necessary.   |
|                                  | ov                                  | gerson og en to          | Species and the second                       | gent of the great and a second of the great  |
|                                  |                                     | m act is                 |  | g grander of the second of the |

#### ADJUSTMENT OF RF AGC

| RF AGC     |   | No.19 RF AGC | Receive a broadcast.  |
|------------|---|--------------|---|
| adjustment |   |              | 2. Select "No.19 RF AGC" of the PICTURE mode in SERVICE             |
|            |   |              | MENU.   |
|            |   |              | 3. Press the MUTE key and turn off color.                           |
|            |   |              | 4. With the MENU LEFT key, get noise in the screen picture. (0 side |
|            | ŀ |              | of setting value)   |
| •          |   |              | 5. Press the MENU RIGHT key and stop when noise disappears          |
| ,          |   |              | from the screen.  |
|            |   | •            | 6. Change to other channels and make sure that there is no          |
|            |   |              | irregularity.   |
|            | 1 | ·            | 7. Press the MUTE key and get color out.                            |
|            |   |              |   |

### **ADJUSTMENT OF FOCUS**

| FOCUS<br>adjustment | Signal<br>generator | FOCUS VR<br>[In HVT] | Input a crosshatch signal.     While looking at the screen, adjust FOCUS VR so that the screen adjust FOCUS VR so th | ne |
|---------------------|---------------------|----------------------|---|----|
|                     |                     |                      | vertical and horizontal lines will be clear and in fine detail.  3. Make sure that the picture is in focus even when the screen ge  | ts |
|                     |                     |                      | darkened.   |    |
|                     |                     |                      |   |    |

## **ADJUSTMENT OF DEFLECTION CIRCUIT**

| Item   | Measuring instrument | Test point   | Adjustment item  | Description   |
|--|----------------------|--------------|--|---|
| V.CENTER V.SIZE and V.POSITION adjustment                      | Signal<br>generator  |              | No.14 V SIZE  No.15 V CENTER  V.CENTER SW  | <ol> <li>Input a crosshatch signal.</li> <li>Confirm the "No.15 V CENTER" of the PICTURE mode is 0.</li> <li>Adjust the vertical SCREEN size to 92% with the "No.14 V SIZE" and V.CENTER SW.</li> </ol>   |
| Screen<br>size<br>92%  |                      | e size (92%) | Picture size   |   |
| H.WIDTH,<br>SIDEPIN<br>CORRECT and<br>H.POSITION<br>adjustment | Signal<br>generator  |              | No.16 H POSITION SIDEPIN CORRECT VR H.WIDTH VR   | <ol> <li>Input a crosshatch signal.</li> <li>Adjust the SIDEPIN CORRECT VR so that the vertical lines at both side of the crosshatch are straight.</li> <li>Select the "No.16 H POSITION" of the PICTURE mode in SERVICE MENU.</li> <li>Adjust the "No.16 H POSITION" until the screen will be horizontally centered.</li> <li>Adjust the H.WIDTH VR so that 92% of the overall crosshatch is displayed on the screen.</li> <li>As required above steps 2 and 5.</li> </ol>   |
|  |                      |              | Town to a second of the second | CONA SAR<br>And Congress of the |

# ADJUSTMENT OF VIDEO / CHROMA CIRCUIT

| Item   | Measuring Tes  | st point Adjustment item                                | Description   |
|--|--|---|---|
| WHITE<br>BALANCE<br>(Low Light)<br>adjustment  | Signal<br>generator<br>Remote<br>control unit  | BRIGHT<br>R CUTOFF<br>G CUTOFF<br>B CUTOFF<br>SCREEN VR | 1. Input a black and white signal (color off). 2. Select the LOW LIGHT mode from the SERVICE MENU. 3. Confirm the Initial setting value of "BRIGHT", "R CUTOFF", "G CUTOFF" and "B CUTOFF". 4. Display one horizontal line by pressing the ①key of the remote   |
|  | [LOW LIGHT] M  | ODE   | control unit.   |
| 000000000000000000000000000000000000000        |  | CUTOFF<br>B CUTOFF                                      | <ol> <li>Turn the screen VR all the way to the left.</li> <li>Turn the screen VR gradually to the right from the left until either one of the red, blue or green colors appears slightly.</li> <li>Adjust the two colors which did not appear until the one horizontal line that is displayed becomes white using the @to®keys of the remote control unit.</li> <li>Turn the screen VR until the first horizontal line is displayed slightly.</li> <li>Press the@key to return to the regular screen.</li> <li>Check the PIP brightness and adjust it by the screen VR if it is not optimum [For except AV-32820 model].</li> </ol> |
|  | emote Control Unit  H.LINE ON H.LINE O  1 2  R CUTOFF A G CUTOF  4 5  R CUTOFF V G CUTOF | 3<br>FF▲ BCUTOFF▲                                       |   |
| WHITE<br>BALANCE<br>(High Light)<br>adjustment | Signal generator Remote control unit   | G DRIVE<br>B DRIVE                                      | <ol> <li>Input a black and white signal (color off).</li> <li>Select the HIGH LIGHT mode in the SERVICE MENU.</li> <li>Confirm the initial setting value of "G DRIVE" and "B DRIVE".</li> <li>Adjust the screen color to white with the⑤,⑥,⑧and⑨keys of the remote control unit.</li> </ol>   |
|  | G DRIVE  HIGH LIGHT  ***   | B DRIVE   | Remote Control Unit  ①key : H.LINE ON ②key : H.LINE OFF ③key : EXIT ⑤key : G DRIVE ▲ ⑥key : B DRIVE ▲ ⑧key : G DRIVE ▼ ⑨key : B DRIVE ▼   |

| item                          | Measuring instrument   | Test point            | Adjustment item | Description  |
|-------------------------------|------------------------|-----------------------|-----------------|--|
| SUB BRIGHT<br>adjustment      | Remote control unit    |                       | No.1 BRIGHT     | Receive a broadcast.     Select "No.1 BRIGHT" of the PICTURE mode in SERVICE MENU.   |
|                               |                        |                       |                 | <ul><li>3. Confirm the initial setting value of the "No.1 BRIGHT".</li><li>4. If the brightness is not the best with the initial setting value, make</li></ul>   |
|                               |                        | l Till Berton to      |                 | fine adjustment of the "No.1 BRIGHT" unit you get the optimum brightness.  |
|                               |                        |                       |                 |  |
| SUB<br>CONTRAST<br>adjustment | Remote control unit    |                       | No.2 PICTURE    | Receive a broadcast.     Select "No.2 PICTURE" of the PICTURE mode in SERVICE MENU.  |
| e di espesa                   |                        |                       |                 | <ol> <li>Confirm the initial setting value of the "No.2 PICTURE".</li> <li>If the contrast is not the best with the initial setting value, make fine adjustment of the "No.2 PICTURE" unit you get the optimum</li> </ol>  |
|                               |                        | . with the control of | ant on a tred   | contrast.  |
| SUB COLOR<br>adjustment       | Remote<br>control unit |                       | No.7 COLOR      | 1. Receive a broadcast. 2. Select "No.7 COLOR" of the PICTURE mode in SERVICE MENU. 3. Confirm the initial setting value of the "No.7 COLOR". 4. If the color is not the best with the initial setting value, make fine adjustment until you get the best color. |
| SUB TINT adjustment           | Remote control unit    | er e                  | No. 6 TINT      | <ol> <li>Input a color bar signal (full field color bar 75% white).</li> <li>Select "No. 6 TINT" of the PICTURE mode in SERVECE MENU.</li> <li>Confirm the initial setting value of the "No. 6 TINT".</li> </ol>   |
| ##**<br>***                   |                        |                       |                 | 4. If the tint is not the best with the initial setting value, make fine adjustment until you get the best tint.   |
|                               |                        | An der et ing in in   | 4               |  |
|                               |                        |                       |                 |  |
|                               |                        |                       |                 |  |
|                               |                        |                       |                 |  |
|                               |                        |                       |                 |  |
|                               |                        |                       |                 |  |

No.51214 23

## ADJUSTMENT OF PIP CIRCUIT

| nal<br>erator |  | NOISE VR [AV SELECTOR PWB]  No.1 V POSITION No.2 LOWER POS. No.3 H POSITION No.4 RIGHT POS.  | <ol> <li>Turn the NO screen.</li> <li>Then adjust disappears of disappeared.</li> <li>Select another trouble.</li> <li>Input a black screen.</li> <li>Select "No.1"</li> <li>Confirm the index screen edge.</li> <li>Adjust the confirmation of the screen edge.</li> <li>Adjust the confirmation of the screen edge.</li> </ol>   | the NOISE VR in the offerom the picture, are stop from the picture, are stop from the picture.  The channel, and make sure and white signal (color off)  V POSITION" of the PIP modulitial setting value of the "No.1 No.1 V POSITION" so that the offupper will be at X1 as show the picture of the "No.2 as 2 ~ 4 above.   | direction where noise it where noise had that there occurs not to both main and pietin SERVICE MENUAL V POSITION".   |
|---------------|--|--|--|--|--|
|               |  | No.2 LOWER POS. No.3 H POSITION No.4 RIGHT POS.  | screen. 2. Select "No.1" 3. Confirm the in 4. Adjust the "Noscreen edge of the screen edg | V POSITION" of the PIP mod<br>nitial setting value of the "No.1<br>No.1 V POSITION" so that the<br>of upper will be at X1 as show<br>prresponding modes of "No.2   | He in SERVICE MENU<br>1 V POSITION".<br>the position of the Plivin.<br>2, No.3, No.4" with the   |
|               | and the second s |  |  | in the second se | and the second s |
|               | a a a a a a a a a a a a a a a a a a a  |  |  |  |  |
| PIP scre      | on the second of |  | PIP<br>SERVICE<br>MODE No.   | ltem (1997)  | PIP SETING POSITION Approx. (mm)   |
|               |  | Programme Communication (Communication Communication Commu | No.1   | UPPER POSITION (X1)  | 40   |
|               |  |  | No.2   | LOWER POSITION (X2)  | 40   |
| . 1           |  |  | No.3   | H POSITION (Y1)  | 50   |
|               |  | X2   | No.4   | RIGHT POSITION (Y2)  | 50   |
|               | 33.5   | PIP screen   | x1 x x x x x x x x x x x x x x x x x x   | PIP screen  X1  No.1  No.2  No.3  No.4   | SERVICE   Item   MODE No.   No.1   UPPER POSITION (X1)   No.2   LOWER POSITION (X2)   No.3   H POSITION (Y1)   No.4   RIGHT POSITION (Y2)  |

| Item                               | Measuring instrument | Test point   | Adjustment item  | Description  |
|------------------------------------|----------------------|--|--|--|
| PIP SUB<br>BRIGHT<br>adjustment    |                      |  | No.8 BRIGHT  | <ol> <li>Receive a broadcast to both main and pip child screen.</li> <li>Select "No.8 BRIGHT" of the PIP mode in the SERVICE MENU.</li> <li>Confirm the initial setting value of the "No.8 BRIGHT".</li> <li>If the brightness of the pip child screen is not the best with initial setting value, and too difficult during main screen brightness, make fine adjustment of the "No.8 BRIGHT" until getting the optimum brightness.</li> </ol> |
| PIP SUB<br>CONTRAST<br>adjustment  |                      |  | No.7 CONTRAST  | <ol> <li>Receive a broadcast to both main and pip child screen.</li> <li>Select "No.7 CONTRAST" of the PIP mode in the SERVICE MENU.</li> <li>Confirm the initial setting value of the "No.7 CONTRAST".</li> <li>If the contrast of the pip child screen is not the best with initial setting value, and too difficult during main screen contrast, make fine adjustment of the "No.7 CONTRAST" until getting the optimum contrast.</li> </ol> |
| PIP SUB A MARCO A COLOR adjustment | Trigger of terminal  |  | No.6 COLOR SAT   | <ol> <li>Receive a broadcast to both main and pip child screen.</li> <li>Select "No.6 COLOR SAT" of the PIP mode in the SERVICE MENU.</li> <li>Confirm the initial setting value of the "No.6 COLOR SAT".</li> <li>If the color of the pip child screen is not the best with initial setting value, and too difficult during main screen color, make fine adjustment of the "No.6 COLOR SAT" until getting the optimum color.</li> </ol>       |
| PIP SUB<br>TINT<br>adjustment      |                      | pot se e tom men<br>pot se to esta como<br>organista de como<br>poularen entropología<br>organista de como<br>potago esta de como<br>potago esta de como<br>potago esta de como<br>potago esta de como | No.5 TINT  Section 18 Comment  Section 18 Comm | <ol> <li>Receive a broadcast to both main and pip child screen.</li> <li>Select "No.5 TINT" of the PIP mode in the SERVICE MENU.</li> <li>Confirm the initial setting value of the "No.5 TINT".</li> <li>If the tint of the pip child screen is not the best with the initial setting value, and too difficult during the main screen tint, make fine adjustment of the "No.5 TINT" until getting the optimum tint.</li> </ol>                 |

#### ADJUSTMENT OF MTS CIRCUIT

| ADJUSTMENT OF MTS CIRCUIT   |   |  |                                 | Noderland (1990) - Indiana (1990) - Indiana (1990)   |
|-----------------------------|---|--|---------------------------------|--|
| Item                        | Measuring instrument                        | Test point                                   | Adjustment part                 | Description  |
| MTS INPUT<br>LEVEL<br>check |   |  | No.4 IN LEVEL                   | Select the "No.4 IN LEVEL" of the SOUND mode in SERVICE MENU.     Verify that the "No.4 IN LEVEL" is set at its initial setting value.   |
| MTS<br>STEREO<br>adjustment | Signal<br>generator<br>Frequency<br>counter | MPX<br>Connector<br>2 pin RTV1<br>[MAIN PWB] | No.5 FH MONITER No.6 STEREO VCO | <ol> <li>Receive a RF signal (non modulated sound signal) from the antenna terminal.</li> <li>Select the "No.5 FH MONITER" of SOUND mode in SERVICE MENU, change the setting value from 0 to 1.</li> <li>Connect the frequency connector to pin 2 of MPX connector.</li> <li>Select the "No.6 STEREO VCO".</li> <li>Confirm the initial setting value of the "No.6 STEREO VCO".</li> <li>Adjust the "No.6 STEREO VCO" so that the frequency counter will display 15.73kHz±0.1kHz.</li> <li>Select the "No.5 FH MONITER" of the SOUND mode, and reset the setting value from 1 to 0.</li> </ol> |
|                             |   |  |                                 |  |

No.51214 25

| ltem   | Measuring instrument | Test point                    | Adjustment item  |    | Description  |
|--|----------------------|-------------------------------|--|----|--|
| MTS SAP  | Signal               | MPX                           | No.11 5FH MON.   | 1. | Receive a RF signal (non modulated sound signal) from the  |
| VCO  | generator            | Connector                     |  |    | antenna terminal.  |
| adjustment   | Eroguenov            | 4 pin SDA                     | No.12 SAP VCO.   | 2. | Connect between pin 4 of MPX connector and GND (pin  |
|  | Frequency            | 3 pin GND                     |  |    | 3 of MPX connector) through 1MΩ resistor.  |
| A 1 5 4 1  |                      | 2 pin RTV1                    |  | 3. | Select the "No.11 5FH MON." of the SOUND mode in SERVICE   |
|  |                      | [MAIN PWB]                    |  |    | MENU, and reset the setting value from 0 to 1.   |
|  |                      |                               |  | 4. | Connect the frequency connector to pin 2 (R.OUT) of MPX  |
|  |                      |                               |  |    | connector.   |
|  | 1                    |                               |  | 5. | Select the "No.12 SAP VCO".  |
|  |                      |                               |  | 6. | Confirm the initial setting value of "No.12 SAP VCO".  |
|  |                      |                               |  | 7. | Adjust the "No.12 SAP VCO" so that the frequency connector will  |
|  |                      |                               |  |    | display 78.67kHz±0.5kHz.   |
|  |                      |                               |  | 8. | Select the "No.11 5FH MON," of the SOUND mode, and reset the   |
| ways a   | and the second       |                               | Agents in  |    | setting value from 1 to 0.   |
|  |                      |                               |  |    |  |
|  |                      |                               |  |    |  |
| MTS FILTER   |                      |                               | No.8 FILTER  | 1. | Select the "No.8 FLTER" of the SOUND mode in SERVICE   |
| check  |                      |                               |  |    | MENU.  |
|  |                      |                               | The second of th | 2. | Verify that the "No.8 FLTER" is set at its initial setting value.  |
|  |                      |                               | a v  |    | AND DO   |
|  |                      |                               |  |    | in Maria hay ent 12  |
|  |                      |                               |  |    |  |
|  |                      |                               |  |    |  |
| MTS  | TV audio             | MPX                           | No.9 LOW SEP.  | 1. | Input a stereo L signal (300Hz) from the TV Audio multiplex  |
| SEPARATION   | multiplex            | Connector                     |  |    | signal generator to the antenna terminal.  |
| adjustment   | signal               | 1 pin LTV1                    | No.10 HI SEP.  | 2. | Connect an oscilloscope to pin 1 (L.OUT) of MPX  |
|  | generator            | 2 pin RTV1                    | ·  | ł  | connector, and display one cycle portion of the 300Hz signal.  |
| en e   | Oscilloscope         | [MAIN PWB]                    |  | 3. | Change the connection of the oscilloscope to pin 2 (R.OUT)   |
| 1.72   | The second second    |                               |  | ŀ  | of MPX connector, and enlarge the voltage axis.  |
|  | 1,180                | edvar i d                     |  | 4. | Select the "No.9 LOW SEP." of the SOUND mode in SERVICE  |
| The state of the state of  | . the second         |                               |  |    | MENU.  |
| that the is  | arte de la compa     | de la serie de                | A TAME OF STATE  | 5. |  |
| a atomic   | and the second       | t in the same                 | 10.000   | 6. | Adjust the "No.9 LOW SEP." so that the stroke element of the   |
|  |                      |                               |  |    | 300Hz signal will become minimum.  |
| L-Chai   | nnel                 | R-Chai                        | nnel   | 7. | Change the signal to 3kHz, and similarly adjust the "No.10 HI  |
|  | waveform             |                               | alk portion  |    | SEP.".   |
|  |                      | 1                             |  |    |  |
|  |                      | Minimum                       |  |    | CANADA CONTRACTOR CONT |
|  | <del>\</del>         |                               |  |    | grander and the control of the contr |
| 1 cycle  |                      | <b>†</b>                      |  |    | AND THE STATE OF T |
|  | $\vee$               |                               |  |    |  |
| 12 Tel 12 Tel 14 Tel 15 Te   |                      | <del>grand of the first</del> |  |    |  |
| e de la companya de l |                      |                               |  | 1  |  |
| N  |                      |                               |  | 1  |  |
|  |                      | J*                            | <u> </u>   |    |  |
| 7.5  |                      |                               | ,  |    |  |
|  |                      | . "                           | , which is   |    |  |
|  | v 2 2 2              | 1.                            |  |    |  |
|  |                      |                               | ·\$  |    |  |
|  | 1                    | 1                             |  | 1  |  |
|  | ŀ                    |                               | l .  | -  |  |
|  |                      |                               | -  |    |  |
|  |                      |                               |  |    |  |

## HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

#### 1. HIGH VOLTAGE HOLD DOWN CIRCUIT

After repairing the high voltage hold down circuit shown in Fig. 1. This circuit shall be checked to operate correctly.

#### 2. CHECKING OF THE HIGH VOLTAGE HOLD DOWN CIRCUIT

- (1) Turn the POWER SW ON.
- (2) As shown in Fig.2, set the resistor (between X connector 1 & 3 ).
- (3) Make sure that the screen picture disappears.
- (4) Temporarily unplug the power cord.
- (5) Remove the resistor (between X connector 1 & 3).
- (6) Again plug the power cord, make sure that the normal picture is displayed on the screen.

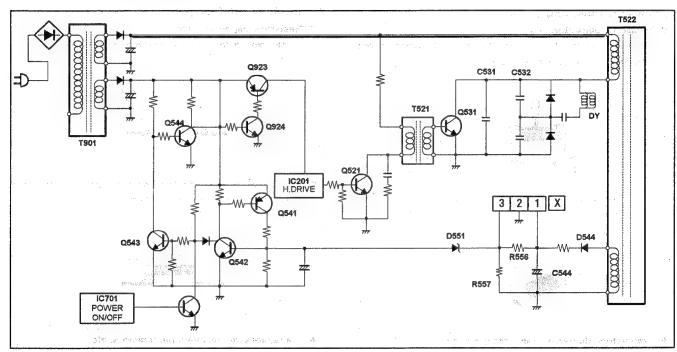


Fig. 1

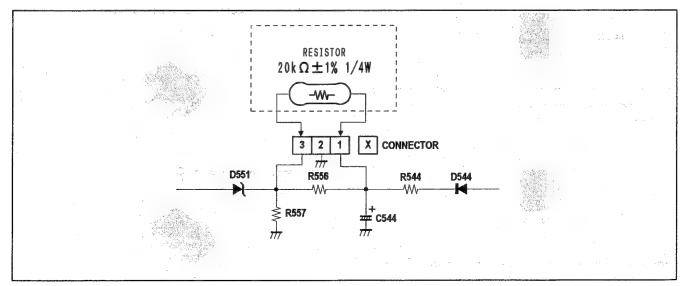


Fig.2

## REPLACEMENT OF CHIP COMPONENT

#### **■ CAUTIONS**

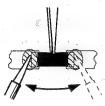
- 1. Avoid heating for more than 3 seconds.
- 2. Do not rub the electrodes and the resist parts of the pattern.
- 3. When removing a chip part, melt the solder adequately.
- 4. Do not reuse a chip part after removing it.

#### **■ SOLDERING IRON**

- 1. Use a high insulation soldering iron with a thin pointed end of it.
- 2. A 30w soldering iron is recommended for easily removing parts.

#### ■ REPLACEMENT STEPS

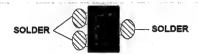
- 1. How to remove Chip parts
- ◆ Resistors, capacitors, etc.
- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



(2) Shift with tweezers and remove the chip part.



- ♦ Transistors, diodes, variable resistors, etc.
- (1) Apply extra solder to each lead.



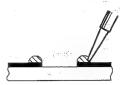
(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



Note: After removing the part, remove remaining solder from the pattern.

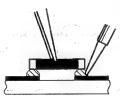
#### 2. How to install Chip parts

- ♦ Resistors, capacitors, etc.
- (1) Apply solder to the pattern as indicated in the figure.

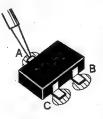


(2) Grasp the chip part with tweezers and place it on the solder.

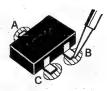
Then heat and melt the solder at both ends of the chip part.



- ♦ Transistors, diodes, variable resistors, etc.
- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead A as indicated in the figure.



(4) Then solder leads B and C.



# AV-36850(US&CA) AV-36870(US&CA) STANDARD CIRCUIT DIAGRAM

#### **ENOTE ON USING CIRCUIT DIAGRAMS** 1.SAFETY

The components identified by the Asymbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

#### 2.SPECIFIED VOLTAGE AND WAVEFORM **VALUES**

The voltage and waveform values have been measured under the following conditions.

(1)Input signal

:Color bar signal

(2)Setting positions

of each knob/button

and variable resistor

:Original setting position

when shipped

(3)Internal resistance of tester

:DC 20kΩ/V

(4)Oscilloscope sweeping time

:H ⇒20µS/div

⇒5mS/div

:Others ⇒ Sweeping time is

specified

(5)Voltage values

:All DC voltage values

\* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

#### 3.INDICATION OF PARTS SYMBOLIEXAMPLE

In the PW board

:R1209--->R209

#### 4.INDICATIONS ON THE CIRCUIT DIAGRAM

#### (1)Resistors

Resistance value

No unit

:[\O]

K

:[ΚΩ]

 $[\Omega M]$ :

Rated allowable power

No indication :1/6[W]

Others

:As specified

Type

No indication :Carbon resistor

OMR

:Oxide metal film resistor

MFR

:Metal film resistor

MPR

:Metal plate resistor

**UNFR** 

:Uninflammable resistor

FR

:Fusible resistor

\* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

#### (2)Capacitors

Capacitance value

1or higher

:[pF]

less than 1

:[µF]

Withstand voltage

No indication :DC50[V]

:DC withstand voltage[V]

AC indicated :AC withstand voltage[V]

\* Electrolytic Capacitors

47/50[Example]:Capacitance value[μF]/withstand voltage[V]

Type

No indication: Ceramic capacitor

MY

:Mylar capacitor

MM

:Metalized mylar capacitor

PP

:Polypropylene capacitor

**MPP** 

:Metalized polypropylene capacitor

ME

:Metalized film capacitor

TF

:Thin film capacitor

BP

:Bipolar electrolytic capacitor

TAN

:Tantalum capacitor

(3)Coils

No unit :[µH]

:As specified

(4)Power Supply

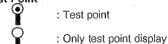
Others

:B1

\_\_\_\_:B2(12V) \_\_\_\_\_:5V

\* Respective voltage values are indicated.

(5)Test Point



(6)Connecting method



(7)Ground symbol : LIVE side ground

: ISOLATED(NEUTRAL) side ground

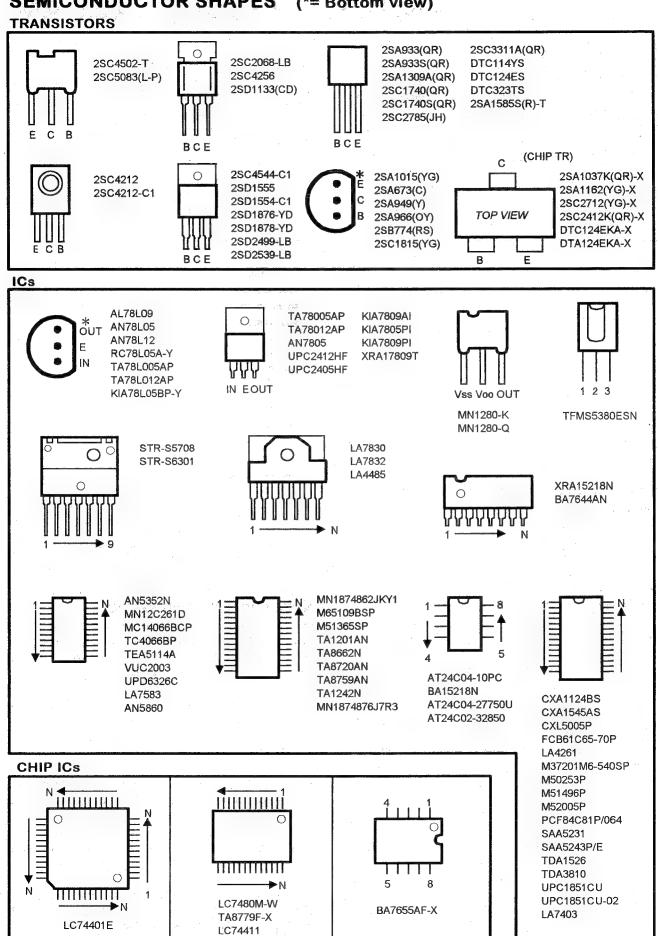
: EARTH ground : DIGITAL ground

#### **5.NOTE FOR REPAIRING SERVICE**

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ( \_\_\_\_) side GND and the ISOLATED(NEUTRAL): ( ) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.
- ♦ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

## SEMICONDUCTOR SHAPES (\*= Bottom view)



# CHANNEL CHART(US)

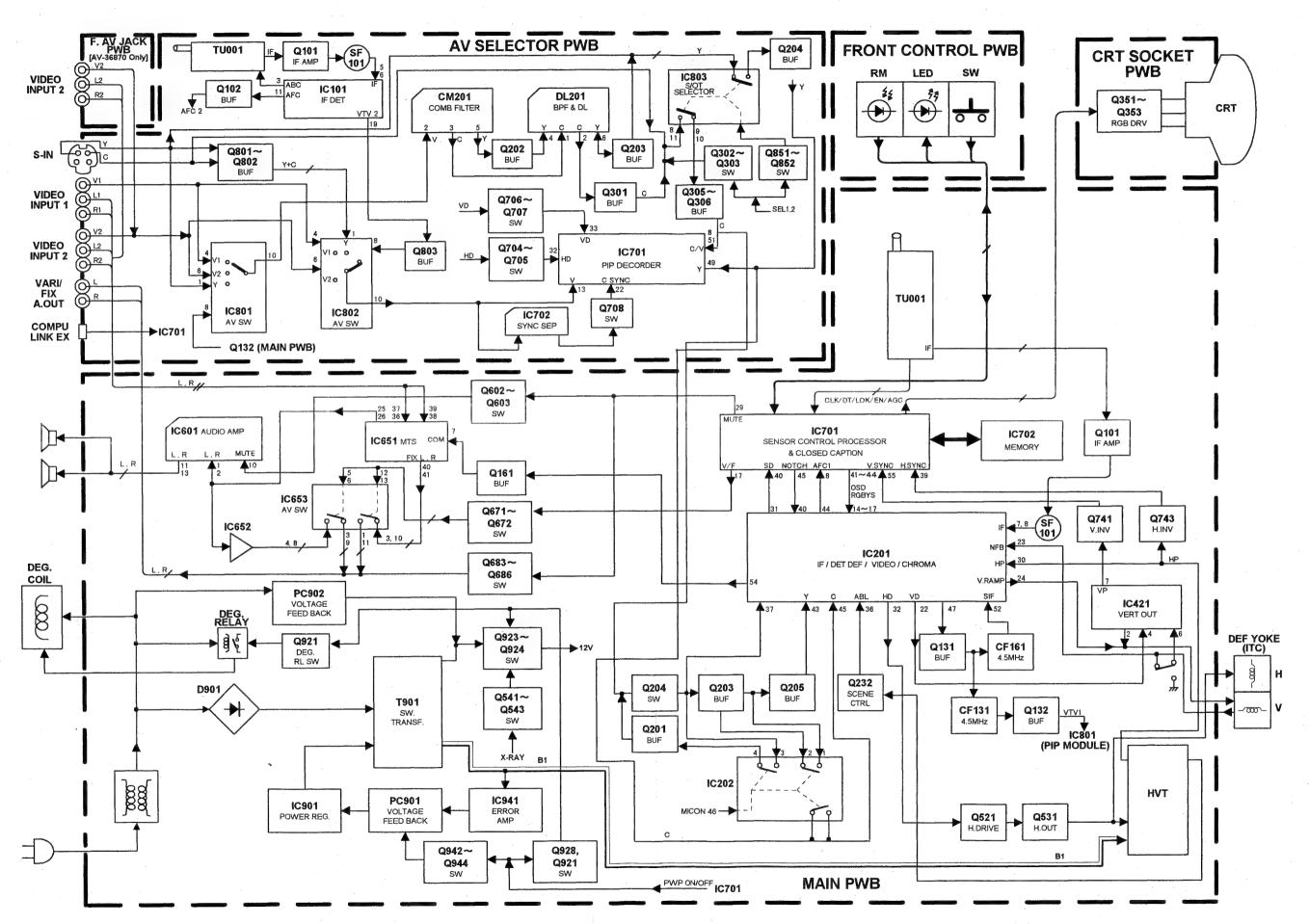
| MO | DE   | BAND  | CHANNEL  |  | TUNEF |
|----|------|-------|--|--|-------|
| TV | CATV | DAND  | REAL   |  | BAND  |
|    |      | VL    | 0<br>0<br>0  | 2<br>3<br>4<br>5<br>6  | I     |
|    |      | VН    | 0<br>0<br>1<br>1<br>1  | 7<br>8<br>9<br>0<br>1<br>2<br>3  | H     |
|    |      |       | A<br>B   | 14<br>15   | I     |
|    |      | MID   | C D E F G H I  | 16<br>17<br>18<br>19<br>20<br>21<br>22   |       |
|    |      | SUPER | J<br>K<br>L<br>M<br>N<br>O<br>P<br>Q<br>R<br>S<br>T<br>U<br>V<br>W   | 23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36                   | II    |
| ×  | 0    |       | W+1<br>W+2<br>W+3<br>W+4<br>W+5<br>W+6<br>W+7<br>W+8<br>W+9<br>W+10<br>W+11  | 37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47                                     |       |
|    |      | HYPER | W+12<br>W+13<br>W+14<br>W+15<br>W+16<br>W+17<br>W+18<br>W+19<br>W+20<br>W+21<br>W+23<br>W+24<br>W+25<br>W+25<br>W+27<br>W+27<br>W+27 | 48<br>49<br>50<br>51<br>52<br>53<br>54<br>55<br>56<br>57<br>58<br>59<br>60<br>61<br>62<br>63<br>64 | ĬV    |
|    |      | ULTRA | W + 29<br>W + 30<br>W + 31<br>W + 32<br>W + 33<br>W + 34   | 65<br>66<br>67<br>68<br>69<br>70   |       |

| MODE         |                              |                  | CHAI   | NNEL   | TUNES         |
|--------------|------------------------------|------------------|--|--|---------------|
| TV           | CATV                         | BAND             | REAL   |  | TUNER<br>BAND |
| ×            | 0                            | ULTRA            | W+35<br>W+36<br>W+37<br>W+38<br>W+39<br>W+40<br>W+41<br>W+43<br>W+45<br>W+45<br>W+45<br>W+55<br>W+55<br>W+55<br>W+55<br>W+55 | 71<br>72<br>73<br>74<br>75<br>76<br>77<br>78<br>79<br>80<br>81<br>82<br>83<br>84<br>85<br>86<br>87<br>88<br>90<br>91<br>92<br>93<br>94 | IV            |
|              |                              | SUB<br>MID       | A-8<br>A-4<br>A-3<br>A-2<br>A-1  | 01<br>96<br>97<br>98<br>99   | I             |
| 0            | ×                            | UHF              | (  | 4<br>><br>9  | IV            |
|              | T                            |                  | 80CH<br>124CH<br>56CH  |  |               |
| PREM<br>CABL | RECEIVE<br>MUM PRO<br>E COMP | OGRAMI<br>ANIES. | SUBSCE<br>MING FR<br>MAY BE F  | OM CEF   | RTAIN         |

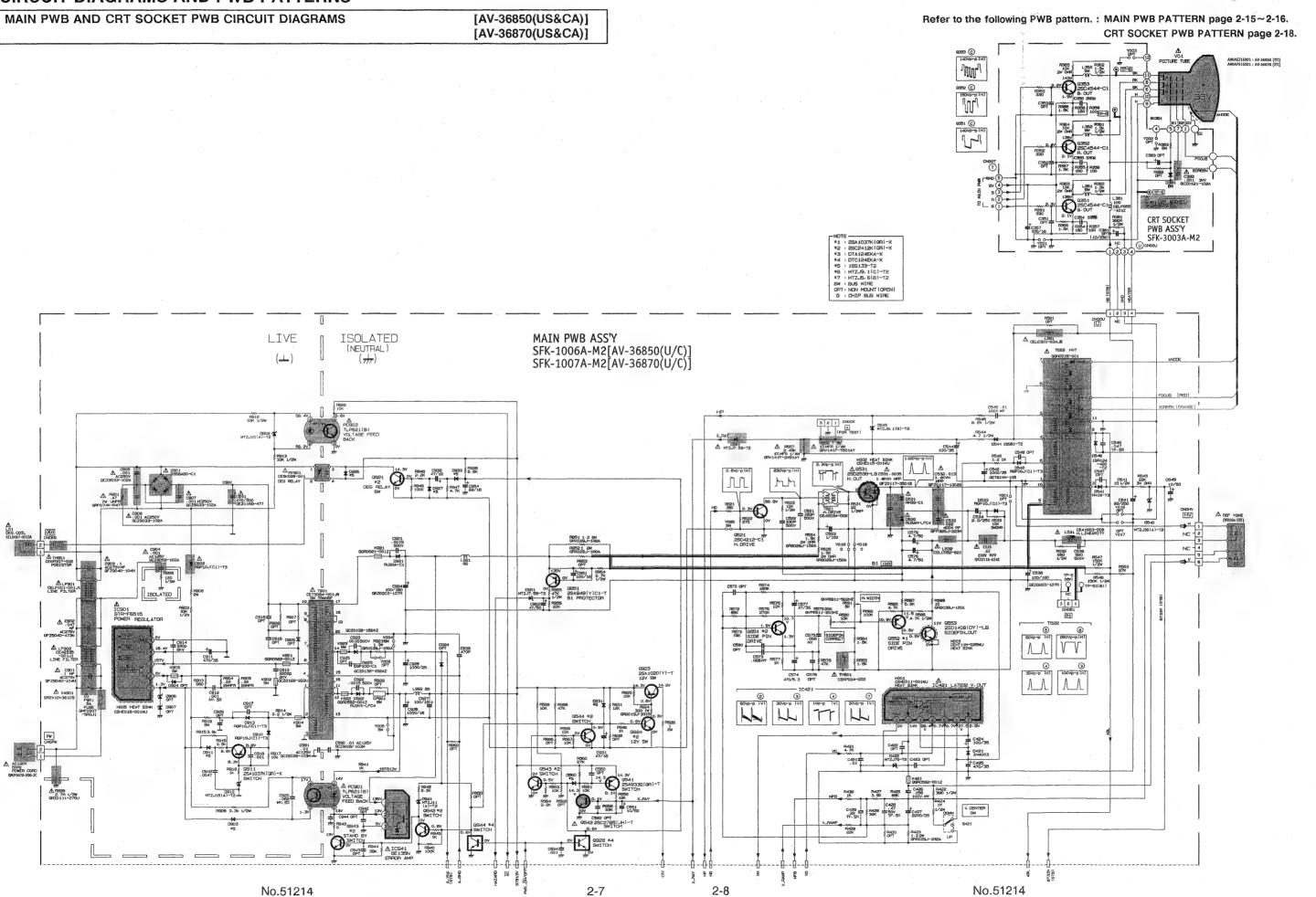
# CHANNEL CHART(CA)

| 110 | 0.5  | · · · · · · · · · · · · · · · · · · · | CHV   | NNEL   |               |
|-----|------|---------------------------------------|---|--|---------------|
| TV  |      | BAND                                  |   | _  | TUNEF<br>BAND |
| IV  | CATV | VL                                    | 0 0   | DISP.<br>02<br>03<br>04<br>05<br>06  | I             |
| O   | O    | VH                                    | 0<br>0<br>1<br>1<br>1   | 07<br>08<br>09<br>0<br>1<br>2  |               |
|     |      | MID                                   | A<br>B<br>C<br>D<br>E<br>F<br>G<br>H<br>I   | 14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22   | II            |
|     |      | SUPER                                 |   | 23<br>24<br>25<br>26<br>27<br>28   | -             |
|     |      |                                       | P Q R S T U V W   | 29<br>30<br>31<br>32<br>33<br>34<br>35<br>36   |               |
| ×   | 0    | HYPER                                 | W+1<br>W+2<br>W+3<br>W+4<br>W+5<br>W+5<br>W+7<br>W+8<br>W+9<br>W+10<br>W+11<br>W+12<br>W+13<br>W+14<br>W+15<br>W+16<br>W+17<br>W+18<br>W+19<br>W+20<br>W+21<br>W+22<br>W+23<br>W+24<br>W+25<br>W+26<br>W+28<br>W+28<br>W+28<br>W+28<br>W+28<br>W+28<br>W+28<br>W+28 | 37<br>38<br>39<br>40<br>41<br>42<br>43<br>44<br>45<br>46<br>47<br>48<br>49<br>50<br>51<br>52<br>53<br>54<br>55<br>56<br>57<br>58<br>60<br>61<br>62<br>63<br>64<br>65 | III           |
|     |      | ULTRA                                 | W + 30<br>W + 31<br>W + 32<br>W + 33<br>W + 34  | 65<br>66<br>67<br>68<br>69   | IV            |

| МО   | DF   |       | CHA   | UNFI   | TUNED         |  |
|--|------|-------|---|--|---------------|--|
|  |      | BAND  | REAL  | DISP.  | TUNER<br>BAND |  |
| X  | CATV | ULTRA | W+35<br>W+36<br>W+37<br>W+38<br>W+39<br>W+40<br>W+41<br>W+42<br>W+43<br>W+45<br>W+45<br>W+45<br>W+55<br>W+53<br>W+55<br>W+55<br>W+55<br>W+55<br>W+55<br>W+5 | 71<br>72<br>73<br>74<br>75<br>76<br>77<br>78<br>79<br>80<br>81<br>82<br>83<br>84<br>85<br>86<br>87<br>88<br>90<br>91<br>92<br>93<br>94<br>100<br>101<br>102<br>103<br>104<br>105<br>106<br>107<br>108<br>119<br>110<br>111<br>111<br>112<br>113<br>114<br>115<br>116<br>117<br>117<br>118<br>119<br>119<br>119<br>119<br>119<br>119<br>119<br>119<br>119 | IV            |  |
|  |      | SUB   | A-8<br>A-4  | 01<br>96   | I             |  |
|  |      | MID   | A-3<br>A-2<br>A-1   | 97<br>98<br>99   | II            |  |
| 0  | ×    | UHF   | 14<br>5<br>69   |  |               |  |
| TOTAL 180CH<br>{ VHF 124CH<br>{ UHF 56CH   |      |       |   |  |               |  |
| NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES. SPECIAL ADAPTERS MAY BE REQUIRED. |      |       |   |  |               |  |



## **CIRCUIT DIAGRAMS AND PWB PATTERNS**

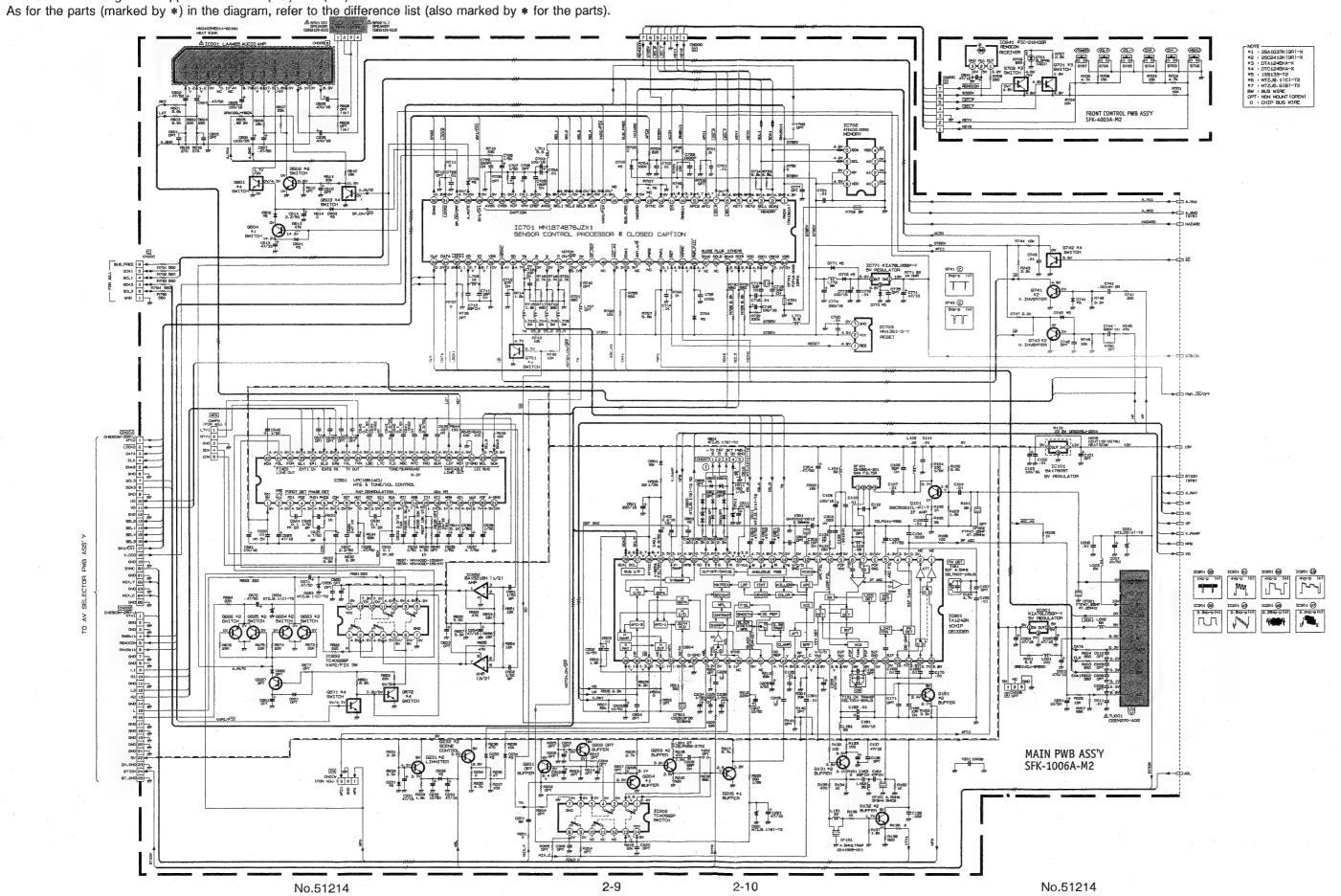


#### MAIN PWB AND FRONT CONTROL PWB CIRCUIT DIAGRAMS

[AV-36850(US&CA)]

Refer to the following PWB pattern.: MAIN PWB PATTERN page 2-15~2-16, FRONT CONTROL PWB PATTERN page 2-19.

This schematic diagram is applicable to both (US) and (CA) models.



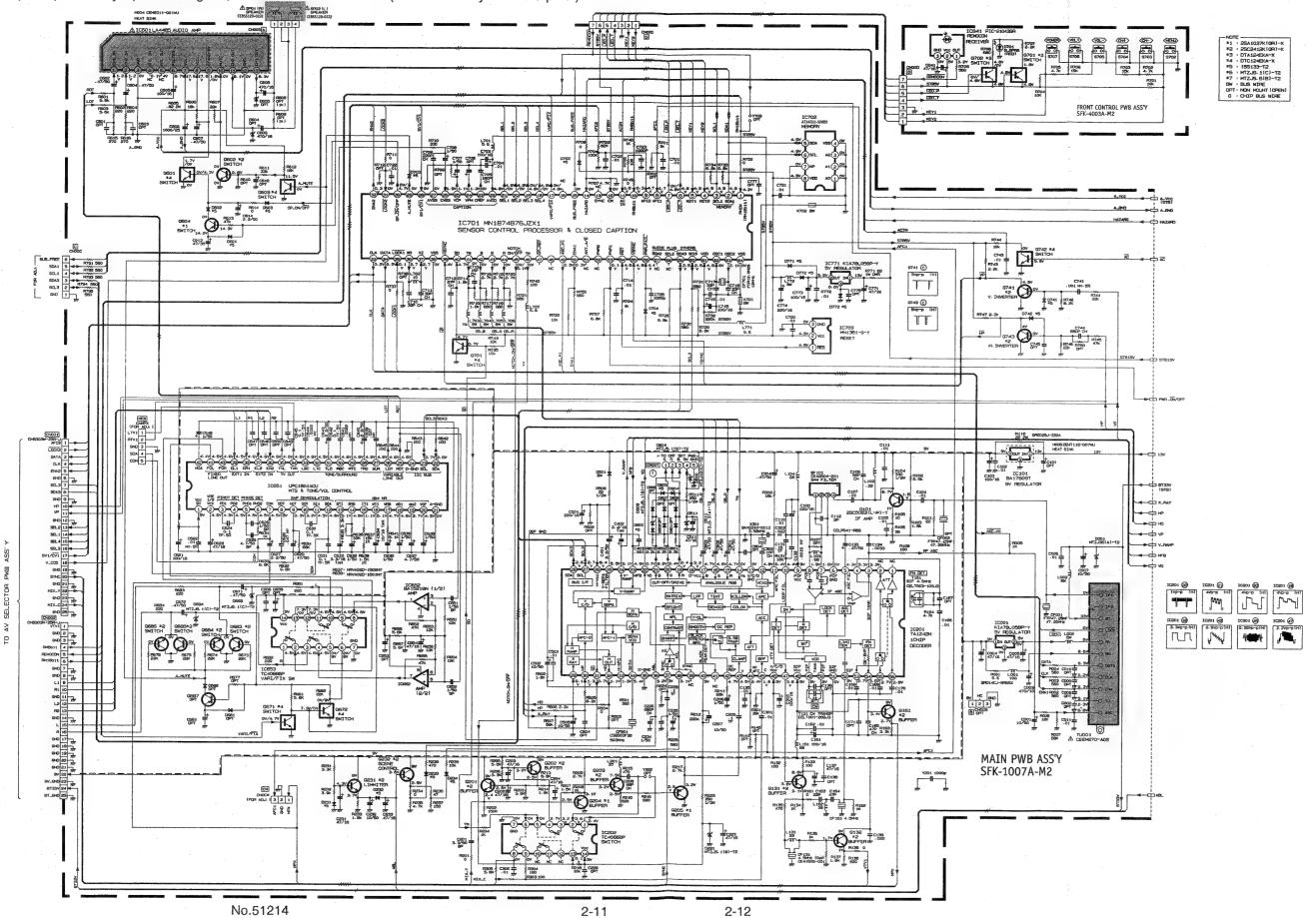
#### MAIN PWB AND FRONT CONTROL PWB CIRCUIT DIAGRAMS

[AV-36870(US&CA)]

Refer to the following PWB pattern.: MAIN PWB PATTERN page 2-15~2-16, FRONT CONTROL PWB PATTERN page 2-19.

This schematic diagram is applicable to both (US) and (CA) models.

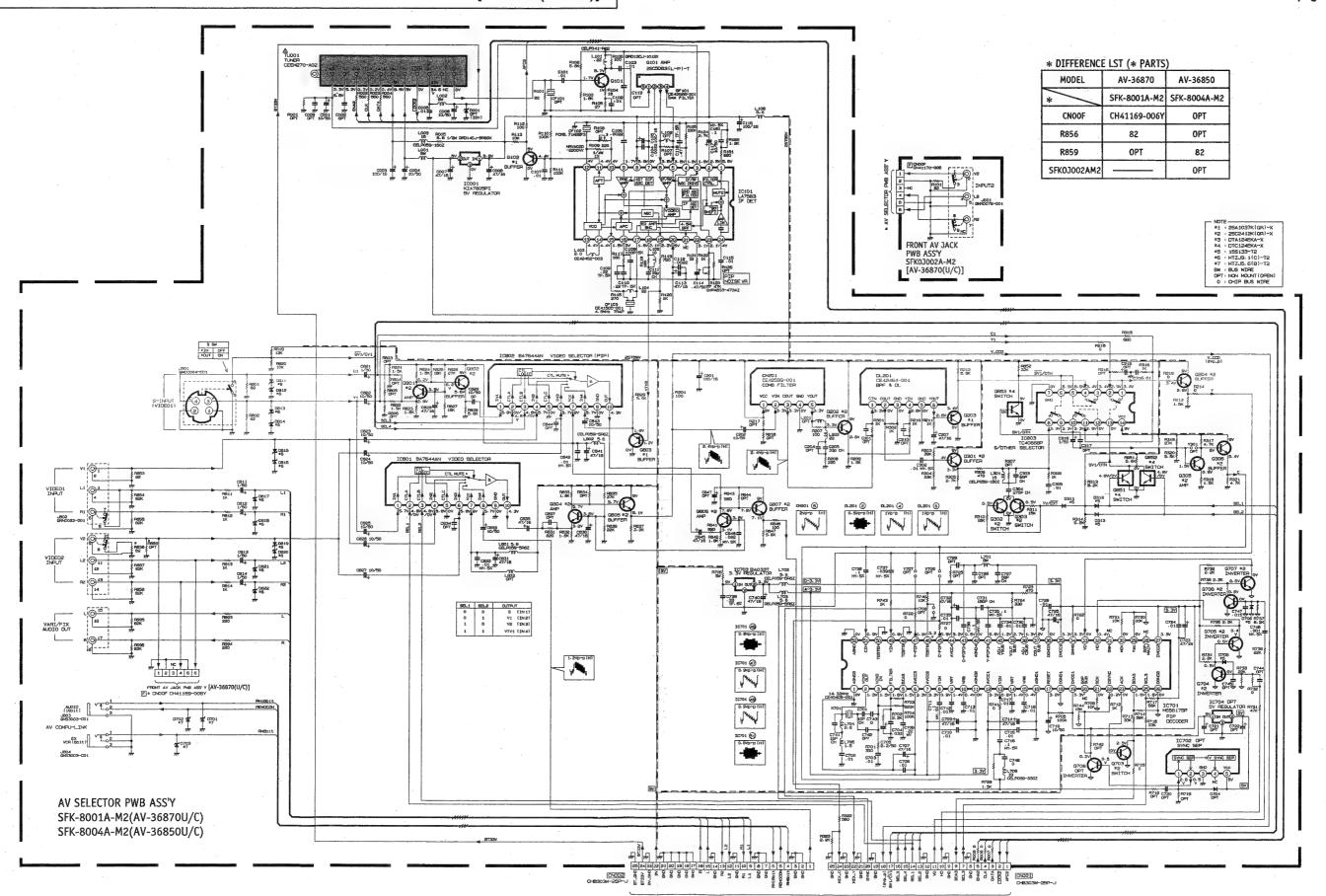
As for the parts (marked by \*) in the diagram, refer to the difference list (also marked by \* for the parts).



AV SELECTOR PWB AND FRONT AV JACK PWB CIRCUIT DIAGRAMS

[AV-36850(US&CA)] [AV-36870(US&CA)]

Refer to the following PWB pattern.: AV SELECTOR PWB PATTERN page 2-17.
FRONT AV JACK PWB PATTERN page 2-19.

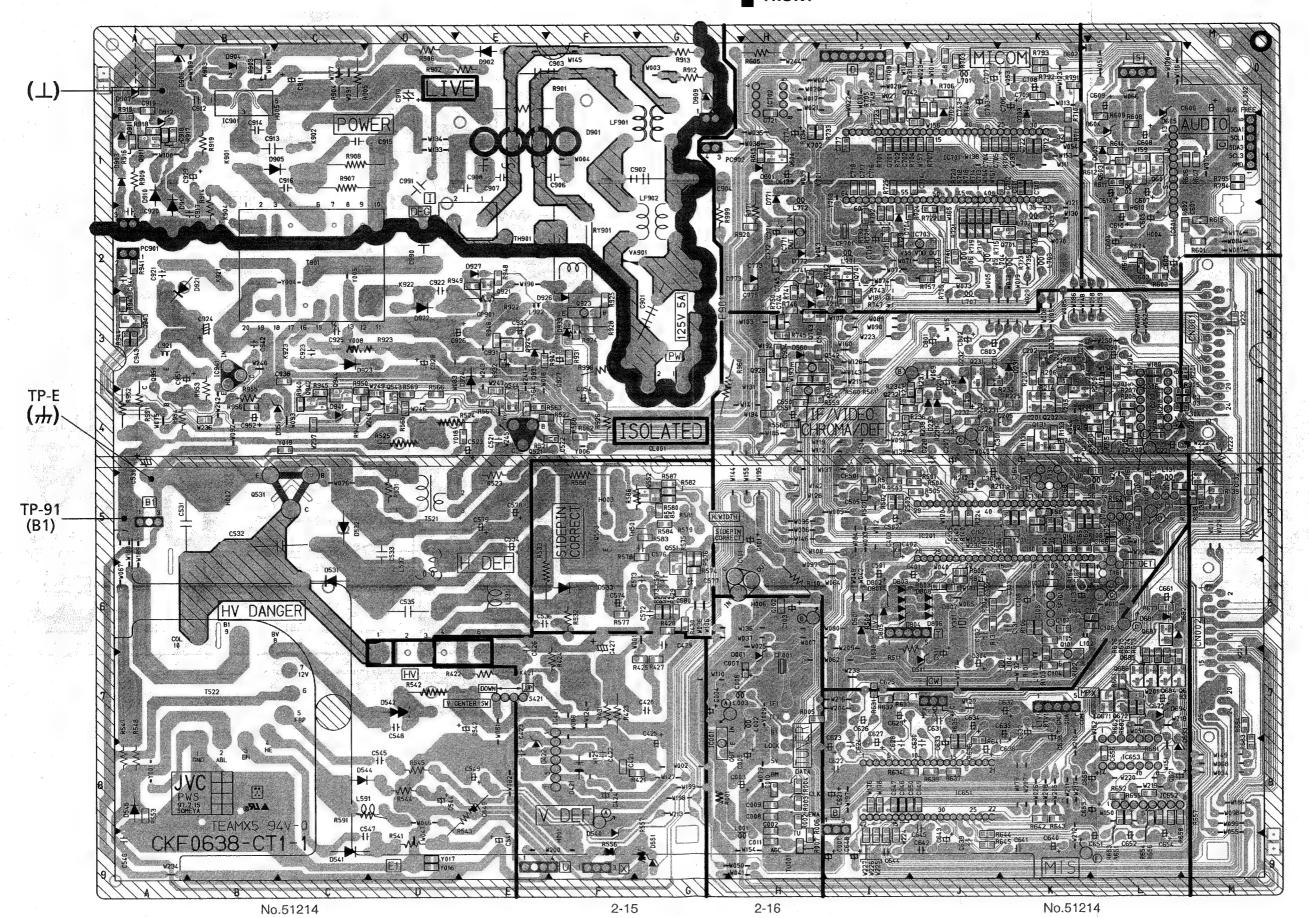


MAIN PWB ASS'Y

[SFK-1006A-M2: AV-36850(US&CA)] [SFK-1007A-M2: AV-36870(US&CA)]

**T** FRONT

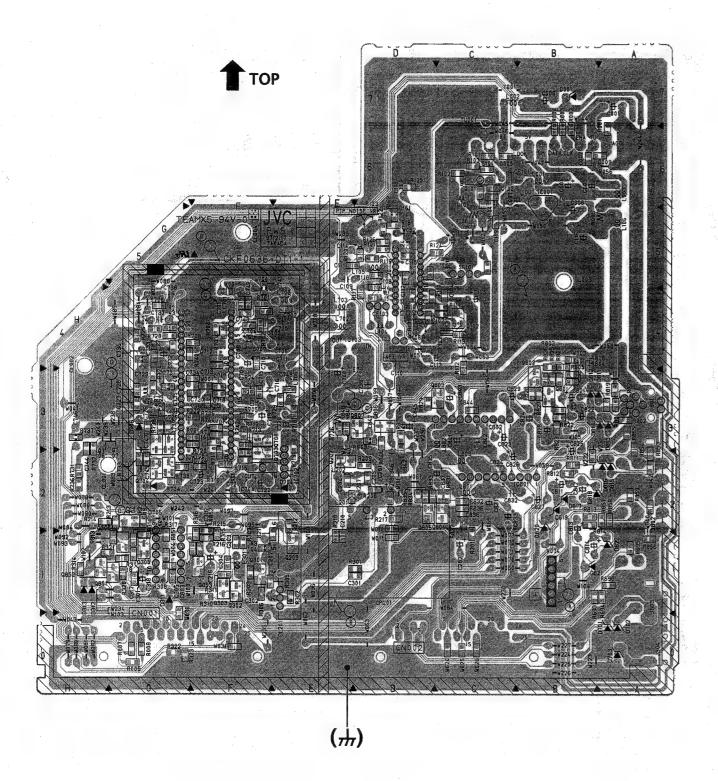
(Magnification Rate 95%)



AV SELECTOR PWB PATTERN

[SFK-8004A-M2 : AV-36850(US&CA)] [SFK-8001A-M2 : AV-36870(US&CA)]

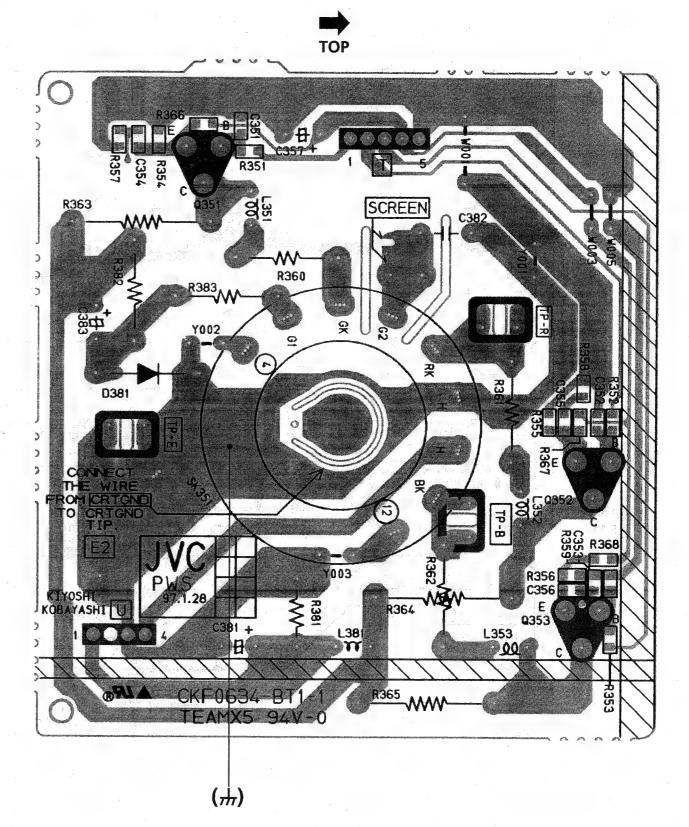
(Magnification Rate 86%)



CRT SOCKET PWB PATTERN

[SFK-3003A-M2]

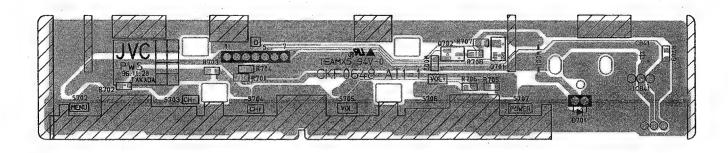
(Magnification Rate 180%)



#### FRONT CONTROL PWB PATTERN

[SFK-4003A-M2]

(Magnification Rate 100%)

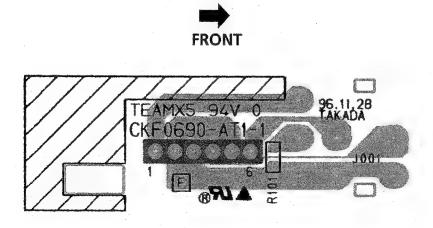




FRONT AV JACK PWB PATTERN [AV-36870(US&CA)]

[SFK0J002A-M2]

(Magnification Rate 200%)



No.51214

AV-36850 AV-36870

# **PARTS LIST**

#### **CAUTION**

- The parts identified by the  $\triangle$  symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.
- As a rule, the resistors and capacitors which are indicated as shown in "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board.

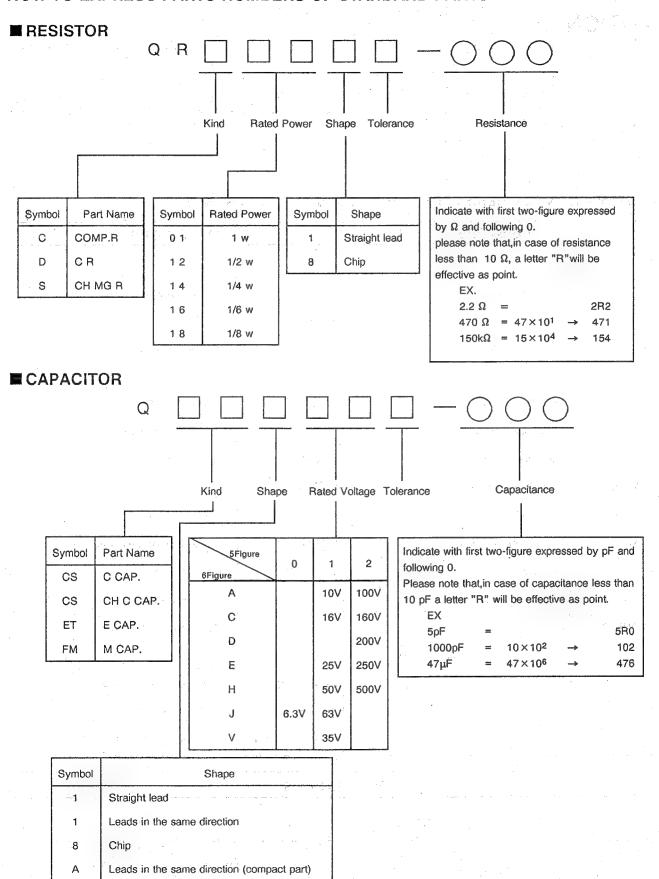
When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS".

#### ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

| RESISTORS             |  | CAPACITORS      |   |
|-----------------------|--|-----------------|---|
| CR                    | Carbon Resistor  | C CAP.          | Ceramic Capacitor                             |
| FR                    | Fusible Resistor   | E CAP.          | Electrolytic Capacitor                        |
| PR                    | Plate Resistor   | M CAP.          | Mylar Capacitor                               |
| VR                    | Variable Resistor  | HV CAP.         | High Voltage Capacitor                        |
| HV R                  | High Voltage Resistor  | MF CAP.         | Metalized Film Capacitor                      |
| MF R                  | Metal Film Resistor  | MM CAP.         | Metalized Mylar Capacitor                     |
| MG R                  | Metal Glazed Resistor  | MP CAP.         | Metalized Polystyrol Capacitor                |
| MP R                  | Metal Plate Resistor   | PP CAP.         | Polypropylene Capacitor                       |
| OM R                  | Metal Oxide Film Resistor  | PS CAP.         | Polystyrol Capacitor                          |
| CMF R                 | Coating Metal Film Resistor  | TF CAP.         | Thin Film Capacitor                           |
| UNF R                 | Non-Flammable Resistor   | MPP CAP.        | Metalized Polypropylene Capacitor             |
| CH V R                | Chip Variable Resistor   | TAN. CAP.       | Tantalum Capacitor                            |
| CH MG R               | Chip Metal Glazed Resistor   | CH C CAP.       | Chip Ceramic Capacitor                        |
| COMP. R               | Composition Resistor   | BP E CAP.       | Bi-Polar Electrolytic Capacitor               |
| LPTC R                | Linear Positive Temperature Coefficient<br>Resistor  | CH AL E CAP.    | Chip Aluminum Electrolytic Capacitor          |
| Maria P. Law. Lipings | and the contract of the contra | CH AL BP CAP.   | Chip Aluminum Bi-Polar Capacitor              |
|                       |  | CH TAN. E CAP.  | Chip Tantalum Electrolytic Capacitor          |
|                       |  | CH AL BP E CAP. | Chip Tantalum Bi-Polar Electrolytic Capacitor |

|     | TOLERANCES |     |      |      |      |      |      |      |       |
|-----|------------|-----|------|------|------|------|------|------|-------|
| F   | G          | J   | К    | M    | N    | R)   | Н    | ··Z  | Р     |
| ±1% | ± 2%       | ±5% | ±10% | ±20% | ±30% | +30% | +50% | +80% | +100% |

#### **HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS**



|   | OL UNIT   | 31                         |
|---|---|----------------------------|
| EXPLODED VIEW PARTS LIST  |   | 32                         |
| EXPLODED VIEW   | ,   | 33                         |
| PRINTED WIRING BOARD PARTS LIST [AV-36850(US&CA)]   | 4 OTK 40004 MO  | 34                         |
| <ul> <li>MAIN PW BOARD ASS'Y</li> <li>CRT SOCKET PW BOARD ASS'Y</li> </ul>  | ( SFK-1006A-M2)   | 38                         |
| FRONT CONTROL PW BOARD ASS'Y  | (SFK-4003A-M2)  | 39                         |
| AV SELECTOR PW BOARD ASS'Y  | ( SFK-8004A-M2)   | 39                         |
| <ul> <li>[AV-36870(US&amp;CA)]</li> <li>MAIN PW BOARD ASS'Y</li> <li>CRT SOCKET PW BOARD ASS'Y</li> <li>FRONT CONTROL PW BOARD ASS'Y</li> <li>AV SELECTOR PW BOARD ASS'Y</li> <li>FRONT AV JACK PW BOARD ASS'Y</li> </ul> | ( SFK-1007A-M2)<br>( SFK-3003A-M2)<br>( SFK-4003A-M2)<br>( SFK-8001A-M2)<br>( SFK0J002A-M2) | 42<br>46<br>47<br>47<br>49 |
| ■ REMOTE CONTROL UNIT PARTS LIST  |   | 50                         |
| ■ PACKING   | <u>, , , , , , , , , , , , , , , , , , , </u>   | 51                         |
|   |   | 51<br>51                   |

# **USING P.W. BOARD & REMOTE CONTROL UNIT**

| P.W.B ASS'Y         | AV-36850(US&CA) | AV-36870(US&CA) |
|---------------------|-----------------|-----------------|
| MAIN P.W.B          | SFK-1006A-M2    | SFK-1007A-M2    |
| CRT SOCKET P.W.B    | SFK-3003A-M2    | ←               |
| FRONT CONTROL P.W.B | SFK-4003A-M2    | <b>—</b>        |
| AV SELECTOR P.W.B   | SFK-8004A-M2    | SFK-8001A-M2    |
| FORNT AV JACK P.W.B |                 | SFK0J002A-M2    |
| REMOTE CONTROL UNIT | RM-C745-1C      | RM-C885-1A      |

No.51214

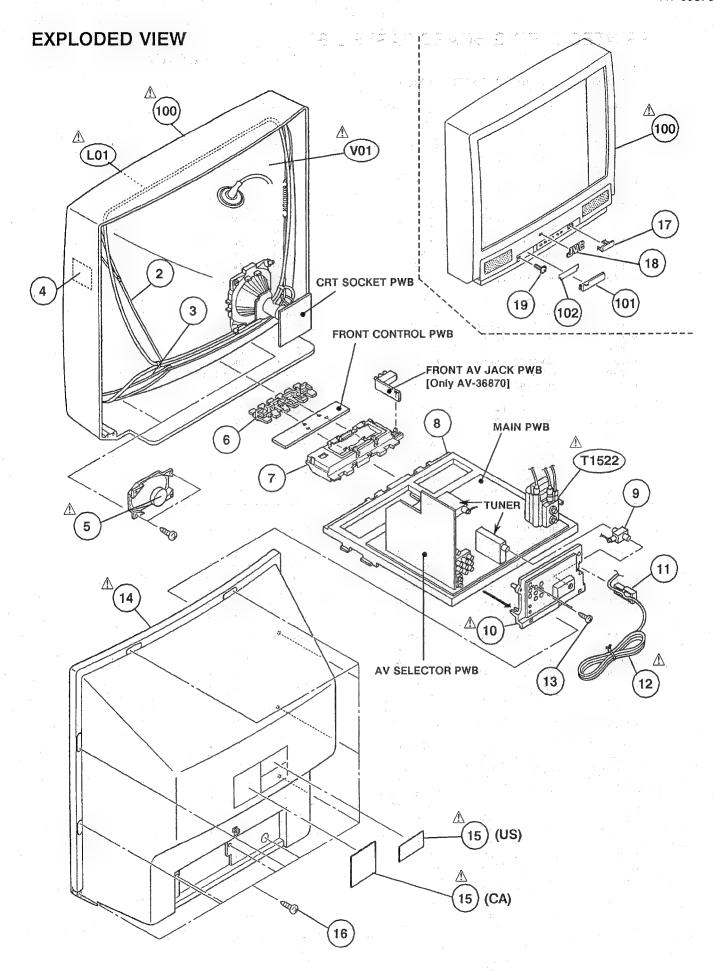
#### **EXPLODED VIEW PARTS LIST**

# [AV-36850(US&CA)]

| △ Ref. No.                         | Part No.   | Part Name  | Description Loca   |
|------------------------------------|--|--|--|
| A L01 A V01 A T1522 2 3 4 A 5 6    | CELD067-001JA<br>A90AEJ15X01<br>QQH0016-001<br>CHGB0009-0D<br>CHGB0016-0D<br>CM48206-001-A<br>CEBSS12D-02J2<br>CM35776-B01-H | DEG COIL PICTURE TUBE(ITC) HVT BRAIDED WIRE BRAIDED WIRE WARNING LABEL SPEAKER PUSH KNOB | (Inc.DY,PC,WED) (With in MAIN PWB ASSY) (×2) (×2)SP01,SP02 |
| O                                  | C#35770-D01-11   | rosii kiiob  |  |
| 8<br>9<br>△ 10<br>11<br>△ 12<br>13 | CM12689-B01-VA<br>CEGA008-001<br>CM23125-A01-VA<br>CM48140-A03-A<br>QMPD070-200-JC<br>SBSB3010Z                              | CHASSIS BASE ANT SPLITTER TERMINAL BOARD CORD CLAMP POWER CORD TAPPING SCREW             | (×2)   |
| ⚠ 14  ⚠ 15                         | CM12634-D02-MA  CM23034-001-A  CM22999-001-A  GBSB4016Z  CM35983-001-H  CM46084-A01  CM12747-00F-MA  CM36162-006-A           | REAR COVER  RATING LABEL RATING SCREW REMOCON WINDOW BRAND MARK F.CABINET ASSY DOOR      | (US)<br>(CA)<br>(×11)<br>Inc.No.101                        |

# [AV-36870(US&CA)]

| $\triangle$             | Ref.  | No.                   | Part No.       | Part Name         | Description Local                     |
|-------------------------|-------|-----------------------|----------------|-------------------|---------------------------------------|
| Δ                       | L01   |                       | CELD067-001JA  | DEG COIL          |                                       |
| $\overline{\mathbb{A}}$ | V01   |                       | A90AFX15X01    | PICTURE TUBE(ITC) | (Inc.DY,PC,WED) *                     |
| $\overline{\mathbb{A}}$ | T1522 | 2                     | 00H0016-001    | HVT               | (With in MAIN PWB ASSY) *             |
|                         | 2     | 7                     | CHGB0009-0D    | BRAIDED WIRE      |                                       |
|                         | 3     | ment at a star to the | CHGB0016-0D    | BRAIDED WIRE      | (×2) *                                |
|                         | 4     |                       | CM48206-001-A  | WARNING LABEL     | •                                     |
| Δ                       | 5     |                       | CEBSS12D-02J2  | SPEAKER           | (×2)SP01,SP02 *                       |
|                         | 6     |                       | CM35776-B01-H  | PUSH KNOB         |                                       |
|                         | 7     |                       | CM22670-001-A  | CONTROL BASE      | *                                     |
|                         | 8     |                       | CM12416-E01-VA | CHASSIS BASE      | · · · · · · · · · · · · · · · · · · · |
|                         | g'.   |                       | CEGA008-001    | ANT SPLITTER      | •                                     |
| Δ                       | 10    |                       | CM23125-A01-VA | TERMINAL BOARD    | *                                     |
| 2tush                   | 11    |                       | CM48140-A03-A  | CORD CLAMP        | S 1 1                                 |
| Λ                       | 12    |                       | OMPD070-200-JC | POWER CORD        | *                                     |
|                         | 13    |                       | SBSB3010Z      | TAPPING SCREW     | (×2) *                                |
| Δ                       | 14    |                       | CM12634-D02-MA | REAR COVER        |                                       |
| Δ                       | 15    |                       | CM23034-001-A  | RATING LABEL      | (US) *                                |
| A                       | 15    |                       | CM22999-001-A  | RATING LABEL      | (CA) *                                |
|                         | 16    |                       | GBSB4016Z      | TAPPING SCREW     | (×11) *                               |
|                         | 17    |                       | CM35983-001-H  | REMOCON WINDOW    | *                                     |
|                         | 18    |                       | CM46084-A01    | BRAND MARK        |                                       |
|                         | 19    |                       | SDSB3010M      | TAPPING SCREW     |                                       |
| Λ                       | 100   |                       | CM12747-00G-MA | F.CABINET ASSY    | Inc.No.101~102                        |
| لنن                     | 101   |                       | CM36162-005-A  | DOOR              |                                       |
|                         | 102   |                       | CM48272-001-A  | SHEET             | •                                     |



#### PRINTED WIRING BOARD PARTS LIST

# AV-36850(US&CA)

#### MAIN PW BOARD ASS'Y (SFK-1006A-M2)

| Δ | Symbol No.  | Part No.  | Part Name  | Descriptio  | n  | Local                                   |
|---|---|---|--|---|--|---|
|   | VARIAB<br>R1579<br>R1581  | LE RESIST<br>QVPE611-203HZ<br>QVPE611-502HZ   | OR<br>VR(SIDEPIN C<br>VR(H.WIDTH)  | ORRECT) 20kΩ E<br>5kΩ   |  | *                                       |
|   | RESIST<br>R1001<br>R1110<br>R1423<br>R1524-25<br>R1533<br>R1541<br>R1542<br>R1543         | O R<br>QRD14CJ-5R6SX<br>QRG029J-220A<br>QRX029J-1R2A<br>QRG029J-152A<br>QRG039J-103A<br>QRD129J-150S<br>QRX019J-1R2S<br>QRG039J-223A          | C R<br>OM R<br>MF R<br>OM R<br>OM R<br>C R<br>MF R<br>OM R                       | 5.6 Ω<br>22 Ω<br>1.2 Ω<br>1.5kΩ<br>10kΩ<br>15 Ω<br>1.2 Ω<br>22kΩ                          | 1/4W J<br>2W J<br>2W J<br>2W J<br>3W J<br>1/2W J<br>1W J<br>3W J     | **                                      |
|   | R1544<br>R1556<br>R1557<br>R1588<br>R1605<br>R1637<br>R1639<br>R1771                      | QRD129J-4R7S<br>QRV141F-7501AY<br>QRV141F-2491AY<br>QRG039J-100A<br>QRX029J-R82A<br>NRVA02D-1502NY<br>NRVA02D-1501NY<br>QRG019J-820S          | C R MF R MF R OM R MF R MF R MF R MF R OM R                                      |   | 1/2W J<br>1/4W F<br>1/4W F<br>3W J<br>2W J<br>/10W±0.5%<br>/10W±0.5% | *                                       |
|   | R1901<br>R1904-05<br>R1923<br>R1924<br>R1926<br>R1951<br>R1952<br>R1998                   | QRF074K-R47<br>QRX029J-R22A<br>QRX039J-1R0A<br>QRG019J-331S<br>QRX029J-1R0A<br>QRX029J-1R2A<br>QRX029J-1R0A<br>QRZ0111-275U                   | UNF R MF R OM R MF R MF R C R  | 0.47 Ω<br>0.22 Ω<br>1 Ω<br>330 Ω<br>1 Ω<br>1.2 Ω<br>1 Ω<br>2.7MΩ                          | 7W K 2W J 3W J 1W J 2W J 2W J 2W J 2W J 1/2W                         | ***                                     |
|   | C A P A C I<br>C1006<br>C1011<br>C1102<br>C1104-05<br>C1106<br>C1107<br>C1110-11<br>C1131 | T O R<br>NCB21HK-103AY<br>NCB21HK-103AY<br>NCB21HK-103AY<br>NCB21HK-103AY<br>NCT03CH-560AY<br>NCB21HK-103AY<br>NCB21HK-103AY<br>QFV71HJ-154MZ | CHIP CAP. TF CAP.    | 0.01 µF<br>0.01 µF<br>0.01 µF<br>0.01 µF<br>56 pF<br>0.01 µF<br>0.01 µF                   | 50V K<br>50V K<br>50V K<br>50V K<br>50V J<br>50V K<br>50V K<br>50V K | ***                                     |
|   | C1132<br>C1134<br>C1135<br>C1139<br>C1162<br>C1163<br>C1164-65<br>C1166                   | QFLC1HK-152MZ<br>NCB21HK-332AY<br>NCB21HK-103AY<br>NCB21HK-223AY<br>NCB21HK-103AY<br>NCT03CH-220AY<br>NCT03CH-470AY<br>NCB21HK-103AY          | M CAP. CHIP CAP.     | 1500 p F<br>3300 p F<br>0.01 μ F<br>0.022 μ F<br>0.01 μ F<br>22 p F<br>47 p F<br>0.01 μ F | 50V K<br>50V K<br>50V K<br>50V K<br>50V K<br>50V J<br>50V J          | *************************************** |
|   | C1168-70<br>C1205<br>C1208<br>C1226<br>C1228<br>C1301<br>C1302<br>C1303                   | NCB21HK-103AY<br>QFLC1HJ-104MZ<br>NCT03CH-680AY<br>NCT03CH-681AY<br>QFLC1HJ-104MZ<br>NCB21HK-103AY<br>NCT03CH-100AY<br>QFLC1HK-223MZ          | CHIP CAP. M CAP. CHIP CAP. CHIP CAP. M CAP. CHIP CAP. CHIP CAP. CHIP CAP. M CAP. | 0.01 µ F<br>0.1 µ F<br>68 p F<br>680 p F<br>0.1 µ F<br>0.01 µ F<br>10 p F<br>0.022 µ F    | 50V K<br>50V J<br>50V J<br>50V J<br>50V J<br>50V K<br>50V J<br>50V K | **************************************  |
|   | C1402<br>C1403<br>C1421<br>C1424<br>C1425<br>C1426<br>C1428                               | QEE61CK-225BZ<br>NCB21HK-102AY<br>NCB21HK-103AY<br>QETC1VM-107Z<br>QETC1VM-477Z<br>QFLC2AK-563MZ<br>QFV71HJ-474MZ                             | TAN.CAP. CHIP CAP. CHIP CAP. E CAP. E CAP. M CAP. TF CAP.                        | 2.2 μ F<br>1000 p F<br>0.01 μ F<br>100 μ F<br>470 μ F<br>0.056 μ F<br>0.47 μ F            | 16V K<br>50V K<br>50V K<br>35V M<br>35V M<br>100V K<br>50V J         | *************************************** |

No.51214

| ⚠ Symbol No.   | Part No.   | Part Name  | Description  | Local                                   |
|--|--|--|--|---|
| C A P A C C1429 C1503 C1523  | I T O R<br>QFV71HJ-224MZ<br>NCB21HK-103AY<br>QETC2CM-105Z<br>QFZ0117-3501S<br>QFZ0117-1302S<br>QFP32GJ-223M<br>QEHC2EM-225MZ<br>QFZ0119-624S           | TF CAP. CHIP CAP. E CAP. MPP CAP. MPP CAP. PP CAP. E CAP.                    | $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | ** ** ** ** ** **                       |
| C1538<br>C1541<br>C1542<br>C1544<br>C1545<br>C1546<br>C1573<br>C1574           | QEZ0203-107R<br>QETB2EM-226<br>QETB1VM-108<br>QETC1VM-107Z<br>QFLC2AJ-103MZ<br>QFV71HJ-473MZ<br>QFLC1HK-683MZ<br>QETC0JM-477Z                          | E CAP. E CAP. E CAP. E CAP. M CAP. TF CAP. M CAP. E CAP.                     | $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | **                                      |
| C1575<br>C1577<br>C1578-79<br>C1613<br>C1622<br>C1624<br>C1625<br>C1626        | QFLC1HK-683MZ<br>QETC1VM-476Z<br>QEM61HK-475MZ<br>QETC1VM-476Z<br>QFLC1HJ-103MZ<br>QFLC1HJ-104MZ<br>QEN61HM-475Z<br>QEN61HM-105Z                       | M CAP. E CAP. E CAP. E CAP. M CAP. M CAP. BP E CAP. BP E CAP.                | $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | **                                      |
| C1628<br>C1630-31<br>C1633<br>C1634<br>C1639<br>C1641<br>C1642<br>C1644        | QFLC1HK-473MZ<br>QFLC1HJ-104MZ<br>QEE61CK-335BZ<br>QEE61CK-106BZ<br>QFLC1HK-273MZ<br>QFLC1HK-222MZ<br>QFLC1HJ-104MZ<br>QFLC1HK-222MZ                   | M CAP. M CAP. TAN.CAP. TAN.CAP. M CAP. M CAP. M CAP. M CAP. M CAP.           | $\begin{array}{ccccc} 0.047\muF & 50V & K \\ 0.1\muF & 50V & J \\ 3.3\muF & 16V & K \\ 10\muF & 16V & K \\ 0.027\muF & 50V & K \\ 2200pF & 50V & K \\ 0.1\muF & 50V & J \\ 2200pF & 50V & K \end{array}$ | 軟                                       |
| C1645<br>C1651-52<br>C1701-02<br>C1704<br>C1705<br>C1709<br>C1710-11<br>C1712  | QFLC1HJ-104MZ<br>QEN61HM-105Z<br>NCB21HK-103AY<br>NCB21HK-103AY<br>NCT03CH-181AY<br>NCT03CH-221AY<br>NCT03CH-221AY<br>NCT03CH-270AY                    | M CAP. BP E CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. | $\begin{array}{ccccc} 0.1\muF & 50V & J \\ 1\muF & 50V & M \\ 0.01\muF & 50V & K \\ 0.01\muF & 50V & K \\ 180pF & 50V & J \\ 220pF & 50V & J \\ 39pF & 50V & J \\ 27pF & 50V & J \end{array}$            | * |
| C1713<br>C1714<br>C1716<br>C1717-18<br>C1720-22<br>C1723<br>C1725<br>C1741     | NCT03CH-150AY<br>NCB21HK-103AY<br>NCB21HK-103AY<br>NCT03CH-330AY<br>NCB21HK-103AY<br>NCB21HK-102AY<br>NCB21HK-102AY<br>NCB21HK-102AY<br>QFN31HJ-102ZJ1 | CHIP CAP. M CAP. | $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | * * * * * * * * * *                     |
| C1743<br>C1744<br>C1772<br>A C1901<br>A C1902<br>A C1903<br>A C1904<br>A C1906 | NCB21HK-103AY<br>NCT03CH-681AY<br>NCB21HK-103AY<br>QFZ9040-104N<br>QFZ9040-473N<br>QFZ9040-104N<br>QCZ9052-102A<br>QCZ9033-102A                        | CHIP CAP. CHIP CAP. CHIP CAP. MF CAP. MF CAP. C CAP. C CAP.                  | 0.01 μ F 50V K<br>680 p F 50V J<br>0.01 μ F 50V K<br>0.1 μ FAC275V M<br>0.047 μ FAC275V M<br>0.1 μ FAC275V M<br>1000 p FAC125V<br>1000 p FAC250V K   | * * * * * * * * * * * *                 |
| △ C1907<br>△ C1908<br>△ C1910<br>C1911<br>C1912<br>C1913<br>C1914              | QCZ9033-102A<br>QCZ9033-102A<br>QEZ0169-477<br>QETC1VM-477Z<br>QFN31HJ-102ZJ1<br>QCZ0122-222U<br>QCZ0122-391A  | C CAP. C CAP. E CAP. E CAP. M CAP. C CAP. C CAP.                             | 1000 p FAC250V K<br>1000 p FAC250V K<br>470 µ F 200V M<br>470 µ F 35V M<br>100 p F 50V J<br>2200 p F 2000V K<br>390 p F 2000V K  | * * * * * * * * *                       |

| <b>∆</b> Sy                      | ymbol No.   | Part No.  | Part Name   | Description  | Local                                   |
|----------------------------------|---|---|---|--|---|
| C1<br>C1<br>C1<br>C1<br>C1<br>C1 | A P A C I<br>1918<br>1919<br>1920<br>1921-23<br>1924<br>1934<br>1938<br>1990-91 | T O R NCB21HK-102AY NCB21HK-472AY QFLC1HJ-823MZ QCZ0132-152AZ QEZ0203-107R NCB21HK-102AY NCT03CH-471AY QCZ9029-103M         | CHIP CAP. CHIP CAP. M CAP. C CAP. E CAP. CHIP CAP. CHIP CAP. CCAP.                                      | 1000 p F 50V K 4700 p F 50V K 0.082 µ F 50V J 1500 p F 500V K 100 µ F 160V 1000 p F 50V K 470 p F 50V J 0.01 µ FAC125V M | *************************************** |
| T1                               |   | O R M E R CELT001-209J3 CELT003-109J3 CE42034-002 QQH0016-001 CETS084-001J8   | C.WAVE TRANSF.<br>S.I.F.TRANSF.<br>H.DRIVE TRANSF.<br>H V TRANSF.<br>S M T                              |  | *************************************** |
| L1<br>L1<br>L1<br>L1<br>L1       | O I L<br>1001<br>1102<br>1103<br>1104<br>1131<br>1161<br>1162                   | CELP059-101Z<br>CELP041-R22<br>CELP041-R68<br>CELP059-680Z<br>CELP059-220Z<br>CELP059-680Z<br>CELP059-390Z<br>CELP059-270Z  | PEAKING COIL | 100 µ H<br>0.22 µ H<br>0.63 µ H<br>68 µ H<br>22 µ H<br>68 µ H<br>39 µ H<br>27 µ H  | **                                      |
| L 1<br>L 1<br>L 1                | 1532  | CE41663-00B<br>CELC052-821<br>CELC901-034J6<br>CELP059-5R6Z<br>CELP058-100Z<br>CELP059-5R6Z<br>CELC058-820Z<br>CELC058-220Z | LINEARITY COIL CHOKE COIL HEATER CHOKE PEAKING COIL PEAKING COIL CHOKE COIL CHOKE COIL                  | 5.6 µ ዘ<br>10 µ ዘ<br>5.6 µ ዘ   | *************************************** |
| D1<br>D1<br>D1<br>D1             |   | MTZJ36(A)-T2<br>MTZJ5.1(B)-T2<br>1SS133-T2<br>1N4003-T2<br>MTZJ75-T2<br>MTZJ3.3(A)-T2<br>RH3G-C1<br>RU3AM-LFC4              | ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE                     |  | *************************************** |
| D1<br>D1<br>D1<br>D1             | 1533<br>1540<br>1541<br>1542<br>1544<br>1546<br>1549                            | RGP10J(C1)-T3<br>MTZJ36(A)-T2<br>RH1S-T3<br>RGP10J(C1)-T3<br>1SS81-T2<br>1SR124-400A-T2<br>MTZJ9.1(B)-T2<br>MTZJ7.5S-T2     | SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE                        |  | *************************************** |
| D1<br>D1<br>D1<br>D1<br>D1       | 1560<br>1601-03<br>1693-94<br>1702-04<br>1741-42<br>1771-73<br>1803<br>1804     | 1SS133-T2<br>1SS133-T2<br>MTZJ9.1(C)-T2<br>1SS133-T2<br>1SS133-T2<br>1SS133-T2<br>1SS133-T2<br>MTZJ5.1(B)-T2                | SI.DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE                  |  | *************************************** |
| D:<br>D:<br>⚠ D:                 |   | 1SS133-T2<br>MTZJ5.1(B)-T2<br>MTZJ12(C)-T2<br>D3SBA60-C1<br>RGP10J(C1)-T3<br>1SS133-T2<br>MTZJ15(A)-T2                      | SI.DIODE ZENER DIODE ZENER DIODE BRIDGE DIODE SI.DIODE SI.DIODE ZENER DIODE                             |  | ** ** ** ** ** **                       |

| <b>∆</b> Sy                              | mbol No.   | Part No.  | Part Name   | Description | Local                                   |
|--|--|---|---|-------------|---|
| D1<br>D1<br>D1<br>D1<br>D1<br>D1         | I O D E<br>1910<br>1911<br>1912<br>1913<br>1921<br>1922<br>1923<br>1926-27                           | RGP10J(C1)-T3<br>1SS133-T2<br>MTZJ15(A)-T2<br>RGP10J(C1)-T3<br>RU30A-C1<br>RU3YX-LFC4<br>EGP10D-C1<br>1SS133-T2   | SI.DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE   |             | **                                      |
| D1<br>D1                                 | 931<br>933<br>941<br>951   | 1SS133-T2<br>1SS133-T2<br>MTZJ11(A)-T2<br>MTZJ7.5S-T2   | SI.DIODE<br>SI.DIODE<br>ZENER DIODE<br>ZENER DIODE  |             | *************************************** |
| Q1<br>Q1<br>Q1<br>Q1<br>Q1               | RANSI<br>101<br>131-32<br>161<br>203<br>204-05<br>231-32<br>521<br>531                               | S T O R<br>2SC5083(L-P)-T<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412C(QR)-X<br>2SC4212-C1<br>2SD2539-LB | SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR   | H.OUT       | *************************************** |
| A Q1:<br>Q1:<br>Q1:<br>Q1:<br>Q1:<br>Q1: | 541<br>542<br>543-44<br>551<br>552<br>553<br>601<br>602  | 2SA933S(QR)-T<br>2SC2785(JH)-T<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SA1037K(QR)-X<br>2SD1408(OY)-LB<br>DTC124EKA-X<br>2SC2412K(QR)-X                           | SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR   |             | *************************************** |
| Q10<br>Q10<br>Q10<br>Q10<br>Q10<br>Q10   | 603<br>604<br>671-72<br>683-86<br>701<br>741<br>742<br>743   | DTC124EKA-X<br>2SA1037K(QR)-X<br>DTC124EKA-X<br>2SC2412K(QR)-X<br>DTC124EKA-X<br>2SC2412K(QR)-X<br>DTC124EKA-X<br>2SC2412K(QR)-X                                  | DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR   |             | ***                                     |
| Q19<br>Q19<br>Q19<br>Q19<br>Q19<br>Q19   | 911<br>921<br>923<br>924<br>928<br>942-43<br>944   | 2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>2SA102O(Y)-T<br>2SC2412K(QR)-X<br>DTC124EKA-X<br>2SC2412K(QR)-X<br>DTC124EKA-X<br>2SA949(Y)C1-T                               | SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR   |             | ***                                     |
| IC:                                      | 1001<br>1101<br>1201<br>1421<br>1601<br>1651<br>1652<br>1653<br>1202<br>1701<br>1702<br>1703<br>1771 | KIA78L05BP-Y BA17809T TA1242N LA7832 LA4485 UPC1851ACU BA15218N TC4066BP TC4066BP MN1874876JZX1 AT24C02-32850 MN1381-Q-Y KIA78L05BP-Y STR-F6515 SE135N            | I.C.(MONO-ANA) I.C.(MONO-ANA) I.C.(MONO-ANA) I.C.(MONO-ANA) I.C.(MONO-ANA) I.C.(MONO-ANA) I.C.(DIGI-MOS) I.C.(DIGI-MOS) I.C.(L.C.(MONO-ANA) I.C.(MONO-ANA) I.C.(MONO-ANA) I.C.(HYBRID) I.C.(HYBRID) | (SERVICE)   | **                                      |
| 0  | THERS  | FTP47.25MF  | CERAMIC FILTER  |             | *                                       |

| Δ                       | Symbol No. | Part No.      | Part Name        | Description | Local |
|-------------------------|------------|---------------|------------------|-------------|-------|
|                         | OTHERS     |               |                  |             |       |
|                         | CF1131     | CE41505-001   | CERAMIC FILTER   |             | *     |
|                         | CF1161     | SFSH4.5MCB    | CERAMIC FILTER   |             |       |
|                         | CF1501     | CSB503F30-T2  | CER.RESONATOR    |             | *     |
|                         | CF1701     | FCR12.0M2S    | CER.RESONATOR    | •           | *     |
| Δ                       | F1901      | QMF0007-5R0J1 | FUSE             | 5.0A        | *     |
|                         | K1421      | QQR0582-001Z  | BEADS CORE       |             | *     |
|                         | K1901      | CE41433-001Z  | BEADS CORE       |             | *     |
|                         | K1903      | CE41433-001Z  | BEADS CORE       | +           | #¢    |
|                         | K1921      | CE41433-001Z  | BEADS CORE       |             | *     |
| Δ                       | LF1901     | CELF001-001J1 | LINE FILTER      |             | *     |
| $\overline{\mathbb{A}}$ | LF1902     | CE42335-001J1 | LINE FILTER      |             | *     |
| $\Lambda$               | PC1901     | TLP621(B)     | I.C.(PH.COUPLER) |             | ale   |
| Δ                       | PC1902     | TLP621(B)     | I.C.(PH.COUPLER) |             |       |
| $\triangle$             | RY1901     | CESK028-001   | RELAY            |             | *     |
|                         | S1421      | QSL6A13-C01   | LEVER SWITCH     | V.CENTER SW | *     |
|                         | SF1101     | CE42604-201   | SAW FILTER       |             |       |
| Λ                       | TH1501     | CEKP004-002   | P.THERMISTOR     |             |       |
| $\overline{\mathbb{A}}$ | TH1901     | CEKP007-002   | P.THERMISTOR     |             |       |
| $\overline{\mathbb{A}}$ | TU1001     | CEEM270-A02   | TUNER            |             | *     |
| $\overline{\mathbb{A}}$ | VA1901     | ERZV10V361CS  | VARISTOR         |             | *     |
| _                       | X1301      | QAX0310-001Z  | X-TAL            |             | *     |
|                         | Y1201      | NCB21HK-102AY | CHIP CAP.        | 1000pF 50V  | K *   |

# CRT SOCKET PW BOARD ASS'Y ( SFK-3003A-M2 )

| Δ       | Symbol No.                                | Part No.  | Part Name                      | Description                    | on                |             | Local |
|---------|---|---|--------------------------------|--------------------------------|-------------------|-------------|-------|
|         | RESIST<br>R3360-62<br>R3363-65            | O R<br>QRZ0111-152<br>QRG029J-103                       | C R<br>OM R                    | 1.5k Ω<br>10k Ω                | 1/2W<br>2W        | J           | *     |
| <u></u> | C A P A C I<br>C3354-55<br>C3356<br>C3382 | T O R<br>NCS21HJ-331AY<br>NCS21HJ-391AY<br>QCZ0121-102A | CER.CAPM<br>CER.CAPM<br>C CAP. | 330 p F<br>330 p F<br>1000 p F | 50V<br>50V<br>3kV | J<br>J<br>Z | **    |
|         | C O I L<br>L3381                          | CELP055-101Z  | PEAKING COIL                   | 100 μ Η                        |                   |             | *     |
|         | T R A N S I<br>Q3351-53                   | S T O R<br>2SC4544-C1                                   | SI.TRANSISTOR                  |                                |                   |             |       |
| Δ       | OTHERS<br>SK3351                          | CE42535-001J1   | C.R.T.SOCKET                   |                                |                   |             | *     |

#### FRONT CONTROL PW BOARD ASS'Y ( SFK-4003A-M2 )

| ⚠ Symbol No.            | Part No.               | Part Name       | Description | Local |
|-------------------------|------------------------|-----------------|-------------|-------|
| D I O D E<br>D4701      | GL2PR6                 | L.E.D.(RED)     |             | *     |
| T R A N S I<br>Q4701-02 | S T O R<br>DTA124EKA-X | DIGI.TRANSISTOR |             | *     |
| I C<br>IC4841           | PIC-21043SR            | IR DETECT UNIT  |             | *     |
| OTHERS                  |                        |                 |             |       |
|                         | CM46978-A01-H          | L.E.D.HOLDER    |             | H¢    |
| S4702                   | OSP1A11-C19Z           | PUSH SWITCH     | MENU        | *     |
| S4703                   | QSP1A11-C19Z           | PUSH SWITCH     | CH -        | *     |
| S4704                   | QSP1A11-C19Z           | PUSH SWITCH     | CH +        | *     |
| S4705                   | QSP1A11-C19Z           | PUSH SWITCH     | VOL -       | *     |
| S4706                   | QSP1A11-C19Z           | PUSH SWITCH     | VOL +       | *     |
| \$4707                  | QSP1A11-C19Z           | PUSH SWITCH     | POWER       | nột . |

#### AV SELECTOR PW BOARD ASS'Y (SFK-8004A-M2)

| Local |      | ption    | Descript  | Part Name           | Part No.                  | Symbol No.      | Δ |
|-------|------|----------|-----------|---------------------|---------------------------|-----------------|---|
|       |      | ΩΒ       | 47k Ω     | TOR<br>VR(NOISE VR) | LE RESIS<br>QVPA603-473AZ | VARIAB<br>R8123 |   |
|       |      |          |           |                     | O R                       | RESIST          |   |
| **    | J    | Ω 1/4W   | 5.6 Ω     | C R                 | QRD14CJ-5R6SX             | R8005           |   |
| nột   | J    |          | 100 Ω     | C R                 | ORD12CJ-101SX             | R8106           |   |
|       | 0.5% | Ω 1/10W± | 220 Ω     | MF R                | NRVA02D-2200NY            | R8109           |   |
|       | 1    |          |           |                     | TOR                       | CAPACI          |   |
| *     | K    | F 50V    | 0.01 u F  | CHIP CAP.           | NCB21HK-103AY             | C8005           |   |
| *     | K    |          | 0.01 µ F  | CHIP CAP.           | NCB21HK-103AY             | C8101-03        |   |
| nțe   | K    | F 50V    | 2200 p F  | CHIP CAP.           | NCB21HK-222AY             | C8104           |   |
| *     | K    |          | 2200 p F  | CHIP CAP.           | NCB21HK-222AY             | C8106           |   |
| *     | K    |          | 0.01 μ F  | CHIP CAP.           | NCB21HK-103AY             | C8107           |   |
| 1/s   | J    |          | 100 p F   | CER.CAPM            | NCS21HJ-101AY             | C8108           |   |
| sþr   | J    |          | 0.22 u F  | TF CAP.             | OFV71HJ-224MZ             | C8109-10        |   |
| **    | j    |          | 39 p F    | CHIP CAP.           | NCT03CH-390AY             | C8111           |   |
| **    | Κ    | F 50V    | 2200 p F  | CHIP CAP.           | NCB21HK-222AY             | C8112           |   |
| *     | K    |          | 0.01 µ F  | CHIP CAP.           | NCB21HK-103AY             | C8115           |   |
| *     | j    | F 50V    | 0.47 μ F  | TF CAP.             | OFV71HJ-474MZ             | C8118           |   |
| *     | J    |          | 0.1 u F   | M CAP.              | OFLC1HJ-104MZ             | C8161           |   |
| *     | j    |          | 33 p F    | CHIP CAP.           | NCT03CH-330AY             | C8205           |   |
| *     | J    |          | 0.01 u F  | M CAP.              | OFLC1HJ-103MZ             | C8302           |   |
| *     | j    |          | 68 p F    | CHIP CAP.           | NCT03CH-680AY             | C8303           |   |
| *     | J    |          | 270 p F   | CHIP CAP.           | NCT03CH-271AY             | C8304           |   |
| *     | K    | F 50V    | 0.01 µ F  | CHIP CAP.           | NCB21HK-103AY             | C8305           |   |
| *     | K    |          | 0.01 µ F  | CHIP CAP.           | NCB21HK-103AY             | C8316           |   |
| 收     | J    |          | 10 p F    | CHIP CAP.           | NCT03CH-100AY             | C8701           |   |
| *     | ĸ    |          | 0.01 µ F  | CHIP CAP.           | NCB21HK-103AY             | C8702-03        |   |
| *     | K    | F 50V    | 0.033 μ F | CHIP CAP.           | NCB21HK-333AY             | C8704           |   |
| *     | Ĵ    |          | 0.22 µ F  | TF CAP.             | QFV71HJ-224MZ             | C8706           |   |
| *     | K    |          | 0.01 μ F  | CHIP CAP.           | NCB21HK-103AY             | C8708           |   |
| *     | K    |          | 0.01 µ F  | CHIP CAP.           | NCB21HK-103AY             | C8710           |   |

| $\overline{\mathbb{V}}$ | Symbol No.   | Part No.  | Part Name  | Description   | Local                                   |
|-------------------------|--|---|--|---|---|
|                         | C A P A C I<br>C8711<br>C8712-13<br>C8715<br>C8716<br>C8717-18<br>C8720<br>C8724<br>C8726    | T O R QFLC1HJ-104MZ NCB21HK-103AY NCB21HK-103AY QFLC1HJ-104MZ NCB21HK-103AY QEN61HM-335Z NCB21HK-103AY NCB21HK-103AY                                    | M CAP. CHIP CAP. CHIP CAP. M CAP. CHIP CAP. BP E CAP. CHIP CAP. CHIP CAP.  | 0.1 µ F 50V J<br>0.01 µ F 50V K<br>0.01 µ F 50V K<br>0.1 µ F 50V J<br>0.01 µ F 50V K<br>3.3 µ F 50V M<br>0.01 µ F 50V K<br>0.01 µ F 50V K | **                                      |
|                         | C8727<br>C8730<br>C8731<br>C8733-34<br>C8735-36<br>C8737<br>C8738<br>C8739                   | NCT03CH-680AY<br>NCB21HK-103AY<br>NCT03CH-151AY<br>NCB21HK-103AY<br>QFLC1HJ-104MZ<br>QFLC1HJ-393MZ<br>QFLC1HJ-104MZ<br>QFV71HJ-334MZ                    | CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. M CAP. M CAP. M CAP. TF CAP.   | 68 p F 50V J 0.01 µ F 50V K 150 p F 50V J 0.01 µ F 50V K 0.1 µ F 50V J 0.039 µ F 50V J 0.1 µ F 50V J 0.33 µ F 50V J                       | ***                                     |
|                         | C8741<br>C8746<br>C8747<br>C8829<br>C8832<br>C8842<br>C8846                                  | NCT03CH-120AY<br>QFN31HJ-102ZJ1<br>NCB21HK-153AY<br>QEN61HM-106Z<br>QFLC1HJ-103MZ<br>QFLC1HJ-103MZ<br>QFLC1HJ-223MZ                                     | CHIP CAP. M CAP. CHIP CAP. BP E CAP. M CAP. M CAP. M CAP.  | 12 p F 50V J<br>100 p F 50V J<br>0.015 µ F 50V K<br>10 µ F 50V M<br>0.01 µ F 50V J<br>0.01 µ F 50V J<br>0.022 µ F 50V J                   | ate<br>ate<br>ate<br>ate<br>ate<br>ate  |
|                         | C O I L<br>L8003<br>L8101<br>L8103<br>L8104<br>L8105<br>L8106<br>L8202<br>L8301              | CELP059-150Z<br>CELP041-R22<br>CE42452-003<br>CELP055-220Z<br>CELP059-100Z<br>CELP059-5R6Z<br>CELP059-220Z<br>CELP059-150Z                              | PEAKING COIL PEAKING COIL COIL PEAKING COIL PEAKING COIL PEAKING COIL PEAKING COIL PEAKING COIL                                      | 15 µ H<br>0.22 µ H<br>22 µ H<br>10 µ H<br>5.6 µ H<br>22 µ H<br>15 µ H   | *************************************** |
| :                       | L8702-03<br>L8704<br>L8705<br>L8706<br>L8801-02  | CELP059-5R6Z<br>CELP055-2R2Z<br>CELP055-1R5Z<br>CELP059-330Z<br>CELP059-5R6Z  | PEAKING COIL PEAKING COIL PEAKING COIL PEAKING COIL PEAKING COIL   | 5.6 µ H<br>2.2 µ H<br>1.5 µ H<br>33 µ H<br>5.6 µ H  | · · · · · · · · · · · · · · · · · · ·   |
|                         | D I O D E<br>D8311-13<br>D8701-03<br>D8705-06<br>D8811-22                                    | 1SS133-T2<br>MTZJ5.6(B)-T2<br>1SS133-T2<br>MTZJ9.1(C)-T2  | SI.DIODE<br>ZENER DIODE<br>SI.DIODE<br>ZENER DIODE   |   | * * * * * * * * * * * * * * * * * * *   |
|                         | T R A N S I<br>Q8101<br>Q8102<br>Q8202<br>Q8203<br>Q8204<br>Q8301-03<br>Q8305-06<br>Q8703-07 | S T O R<br>2SC5083(L-P)-T<br>2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X | SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR |   | *************************************** |
|                         | Q8801-02<br>Q8803<br>Q8804-07<br>Q8851-53  | 2SC2412K(QR)-X<br>2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>DTC124EKA-X   | SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>DIGI.TRANSISTOR   |   | #<br>#<br>#                             |
|                         | I C<br>IC8001<br>IC8101<br>IC8701<br>IC8703<br>IC8801<br>IC8802                              | KIA7805PI<br>LA7583<br>M65617SP<br>BA033T<br>BA7644AN<br>BA7644AN   | I.C.(MONO-ANA) I.C.(MONO-ANA) I C I C OP AMP IC I.C.(MONO-ANA)   |   | *                                       |

| ⚠           | Symbol No.    | Part No.      | Part Name       | Description | L | ocal |
|-------------|---------------|---------------|-----------------|-------------|---|------|
|             | I C<br>IC8803 | TC4066BP      | I.C.(DIGI-MOS)  |             |   | *    |
|             | OTHERS        |               |                 |             |   |      |
|             |               | CM36337-A01-H | SHIELD COVER    | *           |   | *    |
|             |               | CM36424-001   | SHIELD BOTTOM   |             |   |      |
|             | CF8102        | FCR5.71M2SF3  | CER.RESONATOR   |             |   | *    |
|             | CF8103        | CE41505-001   | CERAMIC FILTER  |             |   | *    |
|             | CM8201        | CE42599-001   | COMB FILTER MOD |             |   | *    |
|             | DL8201        | CE42464-001   | BPF&DL MODULE   |             |   | ağı  |
|             | J8801         | QMCC004-C01   | MINI DIN JACK   |             |   |      |
|             | J8802         | QNN0083-001   | PIN JACK        |             |   | *    |
|             | J8803-04      | QMS3003-C01   | JACK            |             |   | *    |
|             | SF8101        | CE42589-201   | SAW FILTER      |             |   |      |
| $\triangle$ | TU8001        | CEEM270-A02   | TUNER           |             |   | ağı  |
|             | X8701         | CE40405-001   | CRYSTAL(4FSC)   |             |   | n t  |

#### PRINTED WIRING BOARD PARTS LIST

# AV-36870(US&CA)

#### MAIN PW BOARD ASS'Y (SFK-1007A-M2)

| Δ | Symbol No.  | Part No.  | Part Name   | Description   | Local |
|---|---|---|---|---|-------|
|   | VARIAB<br>R1579<br>R1581  | QVPE611-203HZ   | O R<br>V R(SIDEPIN CORREC<br>V R(H.WIDTH)                                     | T) 20kΩ B<br>5kΩ B  | *     |
|   | RESIST<br>R1001<br>R1110<br>R1423<br>R1524-25<br>R1533<br>R1541<br>R1542<br>R1543         | O R<br>QRD14CJ-5R6SX<br>QRG029J-220A<br>QRX029J-1R2A<br>QRG029J-152A<br>QRG039J-103A<br>QRD129J-150S<br>QRX019J-1R2S<br>QRG039J-223A        | C R OM R MF R OM R OM R C R MF R OM R   | $\begin{array}{cccccccccccccccccccccccccccccccccccc$  | ***   |
|   | R1544<br>R1556<br>R1557<br>R1588<br>R1605<br>R1637<br>R1639<br>R1771                      | QRD129J-4R7S<br>QRV141F-7501AY<br>QRV141F-2491AY<br>QRG039J-100A<br>QRX029J-R82A<br>NRVA02D-1502NY<br>NRVA02D-1501NY<br>QRG019J-820S        | C R MF R MF R OM R MF R MF R MF R MF R OM R                                   | $\begin{array}{cccccccccccccccccccccccccccccccccccc$  | **    |
|   | R1901<br>R1904-05<br>R1923<br>R1924<br>R1926<br>R1951<br>R1952<br>R1998                   | QRF074K-R47<br>QRX029J-R22A<br>QRX039J-1R0A<br>QRG019J-331S<br>QRX029J-1R0A<br>QRX029J-1R2A<br>QRX029J-1R0A<br>QRX029J-1R0A<br>QRZ0111-275U | UNF R MF R MF R OM R MF R MF R MF R C R                                       | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$   | **    |
|   | C A P A C I<br>C1006<br>C1011<br>C1102<br>C1104-05<br>C1106<br>C1107<br>C1110-11<br>C1131 | T O R NCB21HK-103AY NCB21HK-103AY NCB21HK-103AY NCB21HK-103AY NCT03CH-560AY NCB21HK-103AY NCB21HK-103AY NCB21HK-103AY                       | CHIP CAP. TF CAP. | 0.01 µF 50V K<br>0.01 µF 50V K<br>0.01 µF 50V K<br>0.01 µF 50V K<br>56 pF 50V J<br>0.01 µF 50V K<br>0.01 µF 50V K<br>0.01 µF 50V K        | ***   |
|   | C1132<br>C1134<br>C1135<br>C1139<br>C1162<br>C1163<br>C1164-65<br>C1166                   | QFLC1HK-152MZ<br>NCB21HK-332AY<br>NCB21HK-103AY<br>NCB21HK-223AY<br>NCB21HK-103AY<br>NCT03CH-220AY<br>NCT03CH-470AY<br>NCB21HK-103AY        | M CAP. CHIP CAP.  | 1500 p F 50V K<br>3300 p F 50V K<br>0.01 μ F 50V K<br>0.022 μ F 50V K<br>0.01 μ F 50V K<br>22 p F 50V J<br>47 p F 50V J<br>0.01 μ F 50V K | *     |
|   | C1168-70<br>C1201<br>C1205<br>C1208<br>C1226<br>C1228<br>C1301<br>C1302                   | NCB21HK-103AY<br>QEN61HM-335Z<br>QFLC1HJ-104MZ<br>NCT03CH-680AY<br>NCT03CH-681AY<br>QFLC1HJ-104MZ<br>NCB21HK-103AY<br>NCT03CH-100AY         | CHIP CAP. BP E CAP. M CAP. CHIP CAP. CHIP CAP. M CAP. CHIP CAP. CHIP CAP.     | 0.01 µ F 50V M<br>3.3 µ F 50V M<br>0.1 µ F 50V J<br>68 p F 50V J<br>680 p F 50V J<br>0.1 µ F 50V J<br>0.01 µ F 50V K<br>10 p F 50V J      | **    |
|   | C1303<br>C1306<br>C1402<br>C1403<br>C1421<br>C1424<br>C1425                               | QFLC1HK-223MZ<br>NCB21HK-103AY<br>QEE61CK-225BZ<br>NCB21HK-102AY<br>NCB21HK-103AY<br>QETC1VM-107Z<br>QETC1VM-477Z                           | M CAP. CHIP CAP. TAN.CAP. CHIP CAP. CHIP CAP. E CAP. E CAP.                   | 0.022 μ F 50V K<br>0.01 μ F 50V K<br>2.2 μ F 16V K<br>1000 p F 50V K<br>0.01 μ F 50V K<br>100 μ F 35V M<br>470 μ F 35V M                  | **    |

| Δ           | Symbol No.  | Part No.  | Part Name   | Description   | Local  |
|-------------|---|---|---|---|--|
|             | C A P A C I<br>C1426<br>C1428<br>C1429<br>C1503<br>C1523<br>C1531<br>C1532<br>C1533 | T O R<br>QFLC2AK-563MZ<br>QFV71HJ-474MZ<br>QFV71HJ-224MZ<br>NCB21HK-103AY<br>QETC2CM-105Z<br>QFZ0117-3501S<br>QFZ0117-1302S<br>QFP32GJ-223M | M CAP. TF CAP. TF CAP. CHIP CAP. E CAP. MPP CAP. MPP CAP.                       | 0.056 µ F 100V K<br>0.47 µ F 50V J<br>0.22 µ F 50V J<br>0.01 µ F 50V K<br>1 µ F 160V M<br>3500 p F1.4kVH ± 2.5%<br>0.013 µ F1.4kVH ± 2.5%<br>0.022 µ F 400V J | the state of the s |
| <u>A</u>    | C1534<br>C1535<br>C1538<br>C1541<br>C1542<br>C1544<br>C1545<br>C1546                | QEHC2EM-225MZ<br>QFZ0119-624S<br>QEZ0203-107R<br>QETB2EM-226<br>QETB1VM-108<br>QETC1VM-107Z<br>QFLC2AJ-103MZ<br>QFV71HJ-473MZ               | E CAP. MPP CAP. E CAP. E CAP. E CAP. E CAP. TF CAP.                             | 2.2 µ F 250V M<br>0.62 µ F 200V ± 3%<br>100 µ F 160V<br>22 µ F 250V M<br>1000 µ F 35V M<br>100 µ F 35V M<br>0.01 µ F 100V J<br>0.047 µ F 50V J                | 101<br>201<br>201<br>201<br>201<br>201   |
|             | C1573<br>C1574<br>C1575<br>C1577<br>C1578-79<br>C1613<br>C1622<br>C1624             | QFLC1HK-683MZ<br>QETCOJM-477Z<br>QFLC1HK-683MZ<br>QETC1VM-476Z<br>QEM61HK-475MZ<br>QETC1VM-476Z<br>QFLC1HJ-103MZ<br>QFLC1HJ-104MZ           | M CAP. E CAP. M CAP. E CAP. E CAP. M CAP. M CAP.                                | 0.068 µ F 50V K<br>470 µ F 6.3V M<br>0.068 µ F 50V K<br>47 µ F 35V M<br>4.7 µ F 50V K<br>47 µ F 35V M<br>0.01 µ F 50V J<br>0.1 µ F 50V J                      | 10 to  |
|             | C1625<br>C1626<br>C1628<br>C1630-31<br>C1633<br>C1634<br>C1639<br>C1641             | QEN61HM-475Z<br>QEN61HM-105Z<br>QFLC1HK-473MZ<br>QFLC1HJ-104MZ<br>QEE61CK-335BZ<br>QEE61CK-106BZ<br>QFLC1HK-273MZ<br>QFLC1HK-222MZ          | BP E CAP. BP E CAP. M CAP. M CAP. TAN.CAP. TAN.CAP. M CAP. M CAP.               | 4.7 μ F 50V M<br>1 μ F 50V M<br>0.047 μ F 50V K<br>0.1 μ F 50V J<br>3.3 μ F 16V K<br>10 μ F 16V K<br>0.027 μ F 50V K<br>2200 p F 50V K                        | 364<br>464<br>364  |
|             | C1642<br>C1644<br>C1645<br>C1651-52<br>C1701-02<br>C1704<br>C1705<br>C1709          | QFLC1HJ-104MZ<br>QFLC1HK-222MZ<br>QFLC1HJ-104MZ<br>QEN61HM-105Z<br>NCB21HK-103AY<br>NCB21HK-103AY<br>NCT03CH-181AY<br>NCT03CH-221AY         | M CAP. M CAP. M CAP. BP E CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP.          | 0.1 µ F 50V J<br>2200 p F 50V K<br>0.1 µ F 50V J<br>1 µ F 50V M<br>0.01 µ F 50V K<br>0.01 µ F 50V K<br>180 p F 50V J<br>220 p F 50V J                         | 10c<br>10c<br>10c<br>10c<br>10c<br>10c   |
|             | C1710-11<br>C1712<br>C1713<br>C1714<br>C1716<br>C1717-18<br>C1720-22<br>C1723       | NCT03CH-390AY<br>NCT03CH-270AY<br>NCT03CH-150AY<br>NCB21HK-103AY<br>NCB21HK-103AY<br>NCT03CH-330AY<br>NCB21HK-103AY<br>NCB21HK-102AY        | CHIP CAP. | 39 p F 50V J<br>27 p F 50V J<br>15 p F 50V J<br>0.01 µ F 50V K<br>0.01 µ F 50V K<br>33 p F 50V J<br>0.01 µ F 50V K<br>1000 p F 50V K                          | 2044<br>2044<br>2044<br>2044<br>2044<br>2044<br>2044<br>2044   |
| Δ           | C1725<br>C1741<br>C1743<br>C1744<br>C1772<br>C1901<br>C1902<br>C1903                | NCB21HK-102AY<br>QFN31HJ-102ZJ1<br>NCB21HK-103AY<br>NCT03CH-681AY<br>NCB21HK-103AY<br>QFZ9040-104N<br>QFZ9040-473N<br>QFZ9040-104N          | CHIP CAP. M CAP. CHIP CAP. CHIP CAP. CHIP CAP. MF CAP. MF CAP. MF CAP.          | 1000 p F 50V K<br>1000 p F 50V J<br>0.01 µ F 50V K<br>680 p F 50V J<br>0.01 µ F 50V K<br>0.1 µ FAC275V M<br>0.047 µ FAC275V M<br>0.1 µ FAC275V M              | ale<br>she<br>she<br>she<br>she<br>she<br>she<br>she<br>she  |
| $\triangle$ | C1904<br>C1906<br>C1907<br>C1908<br>C1910<br>C1911<br>C1912                         | QCZ9052-102A<br>QCZ9033-102A<br>QCZ9033-102A<br>QCZ9033-102A<br>QEZ0169-477<br>QETC1VM-477Z<br>QFN31HJ-102ZJ1                               | C CAP. C CAP. C CAP. C CAP. E CAP. E CAP. M CAP.                                | 1000 p FAC125V<br>1000 p FAC250V K<br>1000 p FAC250V K<br>1000 p FAC250V K<br>470 µ F 200V M<br>470 µ F 35V M<br>100 p F 50V J                                | ***************************************  |

| Δ           | Symbol No.   | Part No.  | Part Name   | Description  | Local                                   |
|-------------|--|---|---|--|---|
|             | C A P A C I<br>C1913<br>C1914<br>C1918<br>C1919<br>C1920<br>C1921-23<br>C1924<br>C1934 | T O R QCZ0122-222U QCZ0122-391A NCB21HK-102AY NCB21HK-472AY QFLC1HJ-823MZ QCZ0132-152AZ QEZ0203-107R NCB21HK-102AY          | C CAP. C CAP. CHIP CAP. CHIP CAP. M CAP. C CAP. E CAP. CHIP CAP.  | 2200 p F 2000V K 390 p F 2000V K 1000 p F 50V K 4700 p F 50V K 0.082 µ F 50V J 1500 p F 500V K 100 µ F 160V 1000 p F 50V K | * * * *                                 |
|             | C1938<br>C1990-91  | NCT03CH-471AY<br>QCZ9029-103M   | CHIP CAP.<br>C CAP.   | 470 p F 50V J<br>0.01 μ FAC125V M  | 30<br>10                                |
|             | T R A N S F<br>T1131<br>T1161<br>T1521<br>T1522<br>T1901                               | ORMER CELT001-209J3 CELT003-109J3 CE42034-002 QQH0016-001 CETS084-001J8   | C.WAVE TRANSF.<br>S.I.F.TRANSF.<br>H.DRIVE TRANSF.<br>H V TRANSF.<br>S M T                              |  | *************************************** |
|             | C O I L<br>L1001<br>L1102<br>L1103<br>L1104<br>L1131<br>L1161<br>L1162<br>L1201        | CELP059-101Z<br>CELP041-R22<br>CELP041-R68<br>CELP059-680Z<br>CELP059-220Z<br>CELP059-680Z<br>CELP059-390Z<br>CELP059-270Z  | PEAKING COIL | 100 µ H<br>0.22 µ H<br>0.68 µ H<br>68 µ H<br>22 µ H<br>68 µ H<br>39 µ H<br>27 µ H  | ***                                     |
| $\triangle$ | L1531<br>L1532<br>L1591<br>L1701<br>L1702<br>L1707<br>L1771<br>L1921                   | CE41663-00B<br>CELC052-821<br>CELC901-034J6<br>CELP059-5R6Z<br>CELP058-100Z<br>CELP059-5R6Z<br>CELP059-5R6Z<br>CELC058-820Z | LINEARITY COIL CHOKE COIL HEATER CHOKE PEAKING COIL PEAKING COIL PEAKING COIL CHOKE COIL                | 5.6 µ H<br>10 µ H<br>5.6 µ H<br>5.6 µ H  | *************************************** |
|             | L1922  | CELC058-220Z  | CHOKE COIL  |  | *                                       |
|             | D I O D E D1001 D1221 D1231-34 D1421 D1422 D1511 D1531 D1532                           | MTZJ36(A)-T2<br>MTZJ5.1(B)-T2<br>1SS133-T2<br>1N4003-T2<br>MTZJ75-T2<br>MTZJ3.3(A)-T2<br>RH3G-C1<br>RU3AM-LFC4              | ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE                     |  | *************************************** |
|             | D1533<br>D1540<br>D1541<br>D1542<br>D1544<br>D1546<br>D1549                            | RGP10J(C1)-T3<br>MTZJ36(A)-T2<br>RH1S-T3<br>RGP10J(C1)-T3<br>1SS81-T2<br>1SR124-400A-T2<br>MTZJ9.1(B)-T2<br>MTZJ7.5S-T2     | SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE                        |  | ***                                     |
|             | D1560<br>D1601-03<br>D1693-94<br>D1702-04<br>D1741-42<br>D1771-73<br>D1803<br>D1804    | 1SS133-T2<br>1SS133-T2<br>MTZJ9.1(C)-T2<br>1SS133-T2<br>1SS133-T2<br>1SS133-T2<br>1SS133-T2<br>MTZJ5.1(B)-T2                | SI.DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE                           |  | ***                                     |
|             | D1805<br>D1809   | 1SS133-T2<br>MTZJ5.1(B)-T2  | SI.DIODE<br>ZENER DIODE   |  | *                                       |

| Δ | Symbol No.   | Part No.  | Part Name   | Description | Local  |
|---|--|---|---|-------------|--|
|   | D I O D E D1810 D1901 D1902 D1903-04 D1909 D1910 D1911 D1912                     | MTZJ12(C)-T2 D3SBA60-C1 RGP10J(C1)-T3 1SS133-T2 MTZJ15(A)-T2 RGP10J(C1)-T3 1SS133-T2 MTZJ15(A)-T2   | ZENER DIODE BRIDGE DIODE SI.DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE   |             | 16c                            |
|   | D1913<br>D1921<br>D1922<br>D1923<br>D1926-27<br>D1931<br>D1933<br>D1941          | RGP10J(C1)-T3<br>RU30A-C1<br>RU3YX-LFC4<br>EGP10D-C1<br>1SS133-T2<br>1SS133-T2<br>1SS133-T2<br>MTZJ11(A)-T2   | SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE   |             | **   |
|   | D1951  | MTZJ7.5S-T2   | ZENER DIODE   |             | *  |
| Δ | T R A N S I Q1101 Q1131-32 Q1161 Q1201-03 Q1204-05 Q1231-32 Q1521 Q1531          | S T O R<br>2SC5083(L-P)-T<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SC4212-C1<br>2SD2539-LB | SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR   | H.OUT       | No.                            |
| Δ | Q1541<br>Q1542<br>Q1543-44<br>Q1551<br>Q1552<br>Q1553<br>Q1601<br>Q1602          | 2SA933S(QR)-T<br>2SC2785(JH)-T<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SA1037K(QR)-X<br>2SD1408(OY)-LB<br>DTC124EKA-X<br>2SC2412K(QR)-X                           | SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR   |             | 100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100 |
|   | Q1603<br>Q1604<br>Q1671-72<br>Q1683-86<br>Q1701<br>Q1741<br>Q1742<br>Q1743       | DTC124EKA-X<br>2SA1037K(QR)-X<br>DTC124EKA-X<br>2SC2412K(QR)-X<br>DTC124EKA-X<br>2SC2412K(QR)-X<br>DTC124EKA-X<br>2SC2412K(QR)-X                                  | DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR                       |             | 100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100 |
|   | Q1911<br>Q1921<br>Q1923<br>Q1924<br>Q1928<br>Q1942-43<br>Q1944<br>Q1951          | 2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>2SA1020(Y)-T<br>2SC2412K(QR)-X<br>DTC124EKA-X<br>2SC2412K(QR)-X<br>DTC124EKA-X<br>2SA949(Y)C1-T                               | SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR   |             | ***  |
|   | I C IC1001 IC1101 IC1201 IC1421 IC1661 IC1652 IC1653 IC1202 IC1701 IC1702 IC1703 | KIA78L05BP-Y BA17809T TA1242N LA7832 LA4485 UPC1851ACU BA15218N TC4066BP TC4066BP MN1874876JZX1 AT24C02-32850 MN1381-Q-Y  | I.C.(MONO-ANA) I.C.(MONO-ANA) I.C.(MONO-ANA) I.C I.C.(MONO-ANA) I.C I.C.(MONO-ANA) I.C.(DIGI-MOS) I.C.(DIGI-MOS) I.C.(DIGI-MOS) I.C.(DIGI-MOS) I.C.(DIGI-MOS) | (SERVICE)   | ***  |

| Δ              | Symbol No.  | Part No.   | Part Name  | Description  | Local |
|----------------|---|--|--|--------------|-------|
|                | I C<br>IC1771<br>IC1901<br>IC1941   | KIA78L05BP-Y<br>STR-F6515<br>SE135N  | I.C.(MONO-ANA) I.C.(HYBRID) I.C.(HYBRID)   |              | *     |
| <u></u>        | OTHERS<br>CF1001<br>CF1131<br>CF1161<br>CF1501<br>CF1701<br>F1901<br>K1421<br>K1901 | FTP47.25MF<br>CE41505-001<br>SFSH4.5MCB<br>CSB503F30-T2<br>FCR12.0M2S<br>QMF0007-5R0J1<br>QQR0582-001Z<br>CE41433-001Z | CERAMIC FILTER CERAMIC FILTER CER.RESONATOR CER.RESONATOR FUSE BEADS CORE BEADS CORE               | 5.0A         | ***   |
| $\triangle$    | K1903<br>K1921<br>LF1901<br>LF1902<br>PC1901<br>PC1902<br>RY1901<br>S1421           | CE41433-001Z<br>CE41433-001Z<br>CELF001-001J1<br>CE42335-001J1<br>TLP621(B)<br>TLP621(B)<br>CESK028-001<br>QSL6A13-C01 | BEADS CORE BEADS CORE LINE FILTER LINE FILTER I.C.(PH.COUPLER) I.C.(PH.COUPLER) RELAY LEVER SWITCH | V.CENTER SW  | ***   |
| <b>△ △ △ △</b> |   | CE42604-201<br>CEKP004-002<br>CEKP007-002<br>CEEM270-A02<br>ERZV10V361CS<br>QAX0310-001Z<br>NCB21HK-102AY              | SAW FILTER P.THERMISTOR P.THERMISTOR TUNER VARISTOR CRYSTAL CHIP CAP.                              | 1000pF 50V K | *     |

# CRT SOCKET PW BOARD ASS'Y ( SFK-3003A-M2 )

| Δ | Symbol No.                                | Part No.  | Part Name                      | Descripti                      | on                |             | Local |
|---|---|---|--------------------------------|--------------------------------|-------------------|-------------|-------|
|   | RESIST<br>R3360-62<br>R3363-65            | O R<br>QRZ0111-152<br>QRG029J-103                       | C R<br>OM R                    | 1.5k Ω<br>10k Ω                | 1/2W<br>2W        | K<br>J      | *     |
|   | C A P A C I<br>C3354-55<br>C3356<br>C3382 | T O R<br>NCS21HJ-331AY<br>NCS21HJ-391AY<br>QCZ0121-102A | CER.CAPM<br>CER.CAPM<br>C CAP. | 330 p F<br>330 p F<br>1000 p F | 50V<br>50V<br>3kV | J<br>J<br>Z | *     |
|   | C O I L<br>L3381                          | CELP055-101Z  | PEAKING COIL                   | 100 р Н                        |                   |             | *     |
|   | T R A N S I<br>Q3351-53                   | S T O R<br>2SC4544-C1                                   | SI.TRANSISTOR                  |                                |                   |             | *     |
| A | OTHERS<br>SK3351                          | CE42535-001J1   | C.R.T.SOCKET                   |                                |                   |             | *     |

#### FRONT CONTROL PW BOARD ASS'Y ( SFK-4003A-M2 )

| $\triangle$ | Symbol No.         | Part No.            | Part Name       | Description | Local       |
|-------------|--------------------|---------------------|-----------------|-------------|-------------|
|             | D I O D E<br>D4701 | GL2PR6              | L.E.D.(RED)     |             | *           |
|             | TRANSI<br>Q4701-02 | STOR<br>DTA124EKA-X | DIGI.TRANSISTOR |             | *           |
| ******      | I C<br>IC4841      | PIC-21043SR         | IR DETECT UNIT  |             | ık          |
|             | OTHERS             |                     |                 |             |             |
|             |                    | CM46978-A01-H       | L.E.D.HOLDER    |             | <b>3</b> [4 |
|             | S4702              | QSP1A11-C19Z        | PUSH SWITCH     | MENU        |             |
|             | S4703              | QSP1A11-C19Z        | PUSH SWITCH     | CH -        | *           |
|             | S4704              | QSP1A11-C19Z        | PUSH SWITCH     | CH +        | **          |
|             | S4705              | QSP1A11-C19Z        | PUSH SWITCH     | VOL -       | *           |
|             | S4706              | QSP1A11-C19Z        | PUSH SWITCH     | VOL +       |             |
|             | S4707              | QSP1A11-C19Z        | PUSH SWITCH     | POWER       | 帧           |

# AV SELECTOR PW BOARD ASS'Y ( SFK-8001A-M2 )

| ⚠ | Symbol No.           | Part No.                  | Part Name              | Description |            | Local |
|---|----------------------|---------------------------|------------------------|-------------|------------|-------|
|   | V A R I A B<br>R8123 | LE RESIS<br>QVPA603-473AZ | T O R<br>V R(NOISE VR) | 47kΩ B      |            |       |
|   | RESIST               | OR                        |                        |             |            |       |
|   | R8005                | QRD14CJ-5R6SX             | CR.                    |             | /4W J      | **    |
|   | R8106                | QRD12CJ-101SX             | C R                    |             | /2W J      | **    |
|   | R8109                | NRVA02D-2200NY            | MF R                   | 220 Ω 1/    | 10W ± 0.5% | *     |
|   | CAPACI               | TOR                       |                        |             |            |       |
|   | C8005                | NCB21HK-103AY             | CHIP CAP.              | 0.01 µ F    | 50V K      | *     |
|   | C8101-03             | NCB21HK-103AY             | CHIP CAP.              | 0.01 μ F    | 50V K      | *     |
|   | C8104                | NCB21HK-222AY             | CHIP CAP.              | 2200 p F    | 50V K      | *     |
|   | C8106                | NCB21HK-222AY             | CHIP CAP.              | 2200 p F    | 50V K      | Ne.   |
|   | C8107                | NCB21HK-103AY             | CHIP CAP.              | 0.01 μ F    | 50V K      | *     |
|   | C8108                | NCS21HJ-101AY             | CER.CAPM               | 100 p F     | 50V J      | . *   |
|   | C8109-10             | QFV71HJ-224MZ             | TF CAP.                | 0.22 μ F    | 50V J      | #fe   |
|   | C8111                | NCT03CH-390AY             | CHIP CAP.              | 39 p F      | 50V J      | *     |
|   | C8112                | NCB21HK-222AY             | CHIP CAP.              | 2200 p F    | 50V K      | *     |
|   | C8115                | NCB21HK-103AY             | CHIP CAP.              | 0.01 u F    | 50V K      | **    |
|   | C8118                | OFV71HJ-474MZ             | TF CAP.                | 0.47 µ F    | 50V J      | *     |
|   | C8161                | OFLC1HJ-104MZ             | M CAP.                 | 0.1 µ F     | 50V J      | *     |
|   | C8205                | NCTO3CH-330AY             | CHIP CAP.              | 33 p F      | 50V J      | * *   |
|   | C8302                | OFLC1HJ-103MZ             | M CAP.                 | 0.01 µ F    | 50V J      | *     |
|   | C8303                | NCTO3CH-680AY             | CHIP CAP.              | 68 p F      | 50V J      | . *   |
|   | C8304                | NCTO3CH-271AY             | CHIP CAP.              | 270 p F     | 50V J      | *     |
|   | C8305                | NCB21HK-103AY             | CHIP CAP.              | 0.01 µ F    | 50V K      | *     |
|   | C8316                | NCB21HK-103AY             | CHIP CAP.              | 0.01 µ F    | 50V K      | *     |
|   | C8701                | NCTO3CH-100AY             | CHIP CAP.              | 10 p F      | 50V J      | *     |
|   | C8702-03             | NCB21HK-103AY             | CHIP CAP.              | 0.01 µ F    | 50V K      | *     |
|   | C8704                | NCB21HK-333AY             | CHIP CAP.              | 0.033 μ F   | 50V K      | *     |

|   |   |  | -   |                                 |
|---|---|--|---|---------------------------------|
| A Symbol No.  | Part No.  | Part Name  | Description   | Loca                            |
| C A P A C I<br>C8706<br>C8708<br>C8710<br>C8711<br>C8712-13<br>C8715<br>C8716<br>C8717-18 | T O R<br>QFV71HJ-224MZ<br>NCB21HK-103AY<br>NCB21HK-103AY<br>QFLC1HJ-104MZ<br>NCB21HK-103AY<br>NCB21HK-103AY<br>QFLC1HJ-104MZ<br>NCB21HK-103AY           | TF CAP. CHIP CAP. CHIP CAP. M CAP. CHIP CAP. CHIP CAP. M CAP. CHIP CAP. M CAP. CHIP CAP.   | 0.22 μF 50V<br>0.01 μF 50V<br>0.01 μF 50V<br>0.1 μF 50V<br>0.01 μF 50V<br>0.01 μF 50V<br>0.1 μF 50V<br>0.01 μF 50V      | / K<br>/ J<br>/ K<br>/ K<br>/ J |
| C8720<br>C8724<br>C8726<br>C8727<br>C8730<br>C8731<br>C8733-34<br>C8735-36                | QEN61HM-335Z<br>NCB21HK-103AY<br>NCB21HK-103AY<br>NCT03CH-680AY<br>NCB21HK-103AY<br>NCT03CH-151AY<br>NCB21HK-103AY<br>QFLC1HJ-104MZ                     | BP E CAP. CHIP CAP. M CAP.   | 3.3 µ F 50V<br>0.01 µ F 50V<br>0.01 µ F 50V<br>68 p F 50V<br>0.01 µ F 50V<br>150 p F 50V<br>0.01 µ F 50V<br>0.1 µ F 50V | / K<br>/ J<br>/ K<br>/ J<br>/ K |
| C8737<br>C8738<br>C8739<br>C8741<br>C8746<br>C8747<br>C8829<br>C8832                      | QFLC1HJ-393MZ<br>QFLC1HJ-104MZ<br>QFV71HJ-334MZ<br>NCT03CH-120AY<br>QFN31HJ-102ZJ1<br>NCB21HK-153AY<br>QEN61HM-106Z<br>QFLC1HJ-103MZ                    | M CAP. M CAP. TF CAP. CHIP CAP. M CAP. CHIP CAP. BP E CAP. M CAP.  | 0.039 µ F 50\ 0.1 µ F 50\ 0.33 µ F 50\ 12 p F 50\ 100 p F 50\ 0.015 µ F 50\ 0.01 µ F 50\ 0.01 µ F 50\                   | / J<br>/ J<br>/ J<br>/ K<br>/ M |
| C8842<br>C8846  | QFLC1HJ-103MZ<br>QFLC1HJ-223MZ  | M CAP.   | 0.01 μ F 50\<br>0.022 μ F 50\   |                                 |
| C O I L<br>L8003<br>L8101<br>L8103<br>L8104<br>L8105<br>L8106<br>L8202<br>L8301           | CELP059-150Z<br>CELP041-R22<br>CE42452-003<br>CELP055-220Z<br>CELP059-100Z<br>CELP059-5R6Z<br>CELP059-220Z<br>CELP059-150Z                              | PEAKING COIL                              | 15 μ Η<br>0.22 μ Η<br>22 μ Η<br>10 μ Η<br>5.6 μ Η<br>22 μ Η<br>15 μ Η   |                                 |
| L8702-03<br>L8704<br>L8705<br>L8706<br>L8801-02   | CELP059-5R6Z<br>CELP055-2R2Z<br>CELP055-1R5Z<br>CELP059-330Z<br>CELP059-5R6Z  | PEAKING COIL<br>PEAKING COIL<br>PEAKING COIL<br>PEAKING COIL<br>PEAKING COIL   | 5.6 µ Н<br>2.2 µ Н<br>1.5 µ Н<br>33 µ Н<br>5.6 µ Н  |                                 |
| D I O D E<br>D8311-13<br>D8701-03<br>D8705-06<br>D8811-22                                 | 1SS133-T2<br>MTZJ5.6(B)-T2<br>1SS133-T2<br>MTZJ9.1(C)-T2  | SI.DIODE<br>ZENER DIODE<br>SI.DIODE<br>ZENER DIODE   | e<br>The second   |                                 |
| TRANSI Q8101 Q8102 Q8202 Q8203 Q8204 Q8301-03 Q8305-06 Q8703-07                           | S T O R<br>2SC5083(L-P)-T<br>2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X<br>2SC2412K(QR)-X | SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR |   |                                 |
| Q8801-02<br>Q8803<br>Q8804-07<br>Q8851-53   | 2SC2412K(QR)-X<br>2SA1037K(QR)-X<br>2SC2412K(QR)-X<br>DTC124EKA-X   | SI.TRANSISTOR<br>SI.TRANSISTOR<br>SI.TRANSISTOR<br>DIGI.TRANSISTOR   |   |                                 |
| I C<br>IC8001<br>IC8101   | KIA7805PI<br>LA7583   | I.C.(MONO-ANA)<br>I.C.(MONO-ANA)   |   |                                 |

| Δ           | Symbol No. | Part No.      | Part Name          | Description      | Local                        |
|-------------|------------|---------------|--------------------|------------------|------------------------------|
|             | I C        |               |                    |                  |                              |
|             | IC8701     | M65617SP      | I C                | * *              |                              |
|             | IC8703     | BA033T        | I C                |                  |                              |
|             | IC8801     | BA7644AN      | OP AMP IC          |                  | . *                          |
|             | IC8802     | BA7644AN      | I.C.(MONO-ANA)     |                  | *                            |
|             | IC8803     | TC4066BP      | I.C.(DIGI-MOS)     |                  | *                            |
| -           | OTHERS     |               |                    |                  |                              |
|             | OINERD     | CM36337-A01-H | SHIELD COVER       |                  | *                            |
|             |            | CM36424-001   | SHIELD BOTTOM      |                  |                              |
|             | CF8102     | FCR5.71M2SF3  | CER.RESONATOR      |                  | *                            |
|             | CF8103     | CE41505-001   | CERAMIC FILTER     |                  | **                           |
|             | CM8201     | CE42599-001   | COMB FILTER MOD    |                  | #ļe                          |
|             | DL8201     | CE42464-001   | BPF&DL MODULE      |                  | **                           |
|             | J8801      | OMCC004-C01   | MINI DIN JACK      |                  |                              |
|             | J8802      | QNN0083-001   | PIN JACK           |                  | ske                          |
|             | 70000 04   | ONC2002 CO4   | 3000               | A 2 2 2 2 2 2    | ng na samana ang ang ang ang |
|             | J8803-04   | QMS3003-C01   | JACK<br>SAW FILTER | the same and the |                              |
| Δ           | SF8101     | CE42589-201   |                    |                  | #e                           |
| $\triangle$ | TU8001     | CEEM270-A02   | TUNER              | •                | ·                            |
|             | X8701      | CE40405-001   | CRYSTAL(4FSC)      |                  |                              |

#### FRONT AV JACK PW BOARD ASS'Y ( SFK0J002A-M2 )

| . 🔻 | Sýmbol No.      | Part No.    | Part Name | Description | Local |
|-----|-----------------|-------------|-----------|-------------|-------|
|     | OTHERS<br>J0001 | CEMN032-004 | PIN JACK  |             |       |

# REMOTE CONTROL UNIT PARTS LIST [AV-36850(US&CA)]

[RM-C745-1C]

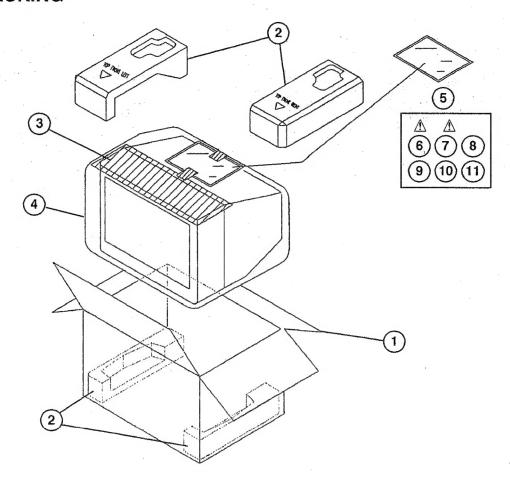
| ⚠ Ref.No. | Part No.  | Part Name     | Description | Local |
|-----------|-----------|---------------|-------------|-------|
|           | 2AA015250 | BATTERY COVER |             |       |

# [AV-36870(US&CA)]

# [RM-C885-1A]

| ⚠ Ref.No. | Part No.       | Part Name     | Description | Loca1 |
|-----------|----------------|---------------|-------------|-------|
|           | 103RRC-AAA-01R | BATTERY COVER |             | *     |

# **PACKING**



# **PACKING PARTS LIST**

| <b>A</b>    | Ref.No.            | Part No.       | Part Name          | Description  | Local  |
|-------------|--------------------|----------------|--------------------|--------------|--------|
| [An         | nerica mo          | dell           |                    |              |        |
| -           | 1                  | CP11499-019-A  | PACKING CASE       |              | *      |
|             | 2                  | CP11387-00D-A  | CUSHION ASSY       | 4pcs in 1set | *      |
|             | 3                  | CP30055-002-A  | TOP COVER          |              | . *    |
|             | 4                  | CP30056-004-A  | POLY BAG           |              |        |
|             |                    | OPGA025-03505A | POLY BAG           |              | *      |
| $\Lambda$   | 5<br><b>6</b><br>6 | CQ40343-001-A  | INST BOOK(ENGLISH) | AV-36850     | *      |
| $\triangle$ | 6                  | CO40334-001-A  | INST BOOK(ENGLISH) | AV-36870     | *      |
| ·           | 8                  | RM-C745-1C     | REMOCON UNIT       | AV-36850     | *      |
|             | . 8                | RM-C885-1A     | REMOCON UNIT       | AV-36870     | *      |
|             | 9                  | BT-51006-1Q    | REGISTER CARD      |              | 粹      |
| [Ca         | nada mo            | dell           |                    |              |        |
|             | 1                  | CP11499-019-A  | PACKING CASE       |              | *      |
|             | 2                  | CP11387-00D-A  | CUSHION ASSY       | 4pcs in 1set | *      |
|             | 3                  | CP30055-002-A  | TOP COVER          | .,           | *      |
|             | 4                  | CP30056-004-A  | POLY BAG           |              | *      |
|             | 5                  | OPGA025-03505A | POLY BAG           |              | *      |
| Λ           | 6                  | CO40343-001-A  | INST BOOK(ENGLISH) | AV-36850     | *      |
| $\triangle$ | 6                  | CO40334-001-A  | INST BOOK(ENGLISH) | AV-36870     | rite ( |
| $\triangle$ | 7                  | CQ40344-001-A  | INST BOOK(FRENCH)  | AV-36850     | *      |
| Δ           | 7                  | CO40335-001-A  | INST BOOK(FRENCH)  | AV-36870     | *      |
| -           | 8                  | RM-C745-1C     | REMOCON UNIT       | AV-36850     | *      |
|             | 8                  | RM-C885-1A     | REMOCON UNIT       | AV-36870     | nje    |
|             | 10                 | BT-52002-10    | WARRANTY CARD      |              | *      |
|             | 11                 | BT-20071B-Q    | SVC CENTER LIST    |              | *      |
|             |                    |                |                    |              |        |